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#### Attachments

##### ***Asbestos Abatement Design Drawings:***

Building 1/2/3 South - Asbestos Abatement Design Drawing 1/2/3S-AAG dated 7/30/13 - Ground Floor  
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Building 1/2/3 South - Asbestos Abatement Design Drawing 1/2/3S-AA3 dated 7/30/13 – 3<sup>rd</sup> Floor  
Building 1/2/3 South - Site Location Drawing

Building 4 South - Asbestos Abatement Design Drawing 4S-AA1 dated 7/30/13 - 1<sup>st</sup> Floor  
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Building 6/7 South - Site Location Drawing

Building 8/9 South - Asbestos Abatement Design Drawing 8/9S-AAG dated 7/30/13 – Ground Floor  
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South Connector - Asbestos Abatement Design Drawing SC-AA1 dated 7/30/13 - 1<sup>st</sup> Floor  
South Connector - Site Location Drawing

## INSTRUCTIONS TO BIDDERS

The bidding requirements set forth by the State of Vermont in the upfront documents shall take precedence over instructions provided under this section. Where information in this section is more stringent than the State's upfront documents, the more stringent requirement shall apply.

### Project Description

The Asbestos Abatement Contractor (hereinafter referred to as “**AAC**”) shall furnish all labor, equipment, materials, services, insurance, permits, licenses/certificates, etc., for the proper removal and proper disposal of asbestos-containing materials (**ACM**) detailed herein for the South Historic Core Buildings at the Waterbury State Office Complex, 103 South Main Street in Waterbury, Vermont (hereinafter referred to as the “**Work**”).

Refer to the *Project-Specific Sequence and Procedures* section below and the asbestos abatement design drawings for approximate locations, quantities and types of ACM to be removed. Not all materials are specifically shown on the drawings; however, the intent is to remove all asbestos-containing materials within the work areas (with the exception of window caulk where only the bulk of caulk will be removed to prevent damage to historic brick). For example, if some miscellaneous pipe and fitting insulation is not specifically demarcated on the drawing, the AAC shall remove the material at no additional cost if it is located within their containment area.

*All quantities of asbestos-containing materials scheduled for removal provided herein and on schematic drawings are approximate. AAC is responsible for verifying actual amounts of subject asbestos-containing materials prior to submitting their bid. No extra compensation will be awarded for failure to verify material quantities. Where there is a discrepancy between the specifications and the design drawings, the more stringent of the discrepancy shall be adhered to.*

*It is agreed upon that the date of beginning, rate of progress, and the time for completion of the work to be done are essential conditions of the contract and that the Work shall be coordinated when Owner gives AAC verbal or written Notice to Proceed. Once the selected AAC has been given a written or verbal notice to proceed, they must immediately provide a permit application to the Vermont Department of Health.*

### Time Schedule

The work shall commence on or about October 28, 2013 and be substantially complete by December 30, 2013.

### Bid

By submitting a bid, the AAC acknowledges that they have investigated and satisfied themselves to the following:

- The conditions affecting the work, including but not limited to; physical conditions of the site which may bear upon site access, handling and storage of tools and materials, access to water, electrical service or other utilities, or which may otherwise affect performance of required activities.

- The character and quantity of all surface and subsurface materials or obstacles to be encountered in so far as this information is reasonably ascertainable from an inspection of the site, including exploratory work done by the Owner and/or Project Designer, as well as information presented in drawings and specifications included with this package.
- Quantity of asbestos-containing materials to be removed.

Failure by the AAC to acquaint themselves with available information will not relieve them from the responsibility for estimating properly the difficulty or cost of successfully completing or performing the work. The Owner is not responsible for any conclusions or interpretations made by the AAC on the basis of the information made available by the Owner or Project Designer.

### **Bidder's Qualifications**

Bidder must be licensed as a Vermont Asbestos Abatement Entity upon submission of bid. The license shall be valid for the duration of the project. The Entity shall have a minimum of three years asbestos abatement experience with projects of a similar nature and size of the project described herein.

### **Questions & Interpretation**

All requests for interpretation shall be directed to Deb Damore at [SOV.ThePathForward@state.vt.us](mailto:SOV.ThePathForward@state.vt.us) State of Vermont, Office of Purchasing & Contracting; 802/828-2211. Actual contact with any other party or attempts by bidders to contact any other party could result in the rejection of their proposal. Any interpretation of documents will be made by addendum prior to bid date. A copy of such addendum will be mailed or delivered for each set of Bid Documents issued to bidders. It is the responsibility of the Bidder to ensure they have received all addenda and they must so state the number of the addenda they have received on the Bid Form. All addenda will become part of the Contract Documents. Questions will be received in writing until October 15, 2013

### **Modification & Withdrawal of Bids**

Proposals may not be modified after they are received and recorded by the State of Vermont. Bidders may withdraw Bids at any time before bid opening, but will not be allowed to resubmit their bid. No proposal may be withdrawn or modified after bid opening except where the award of Contract has been delayed beyond 60 days.

## **GENERAL REQUIREMENTS**

### **On-site Pre-Abatement Meeting**

AAC shall attend an on-site pre-abatement meeting prior to commencement of work. This meeting will be mandatory for the Abatement Supervisor that will be onsite throughout the duration of the project. This meeting will cover important aspects of the project, such as, but not limited to, access to the facility, arranging work hours, parking, and more.

### **On-site Weekly Progress Meetings**

AAC shall attend weekly job meetings to discuss progress of the work and other intricacies that have developed over the course of the project. These meetings will be mandatory for the on-site Supervisor. If the abatement work appears to be falling behind schedule, a Project Manager or Principal of the AAC shall also attend the meeting.

### **AAC's Staffing**

AAC shall provide sufficient staffing to complete the work as provided in the time schedule.

### **On-Site Responsibilities**

The work at the WSOC is a highly scrutinized and sensitive project. Workers not carrying themselves in a professional manner will be asked to leave the campus. A few issues of concern that could be cause for removal of AAC's personnel from the WSOC includes, but does not limit:

- Illegal drug and/or alcohol use and/or intoxication while at the campus.
- Clothing with inappropriate or implicit wording or illustrations.
- Sexual harassment or bullying of any sort.
- Inappropriate language or actions.
- Loud music at the complex, including in vehicles.
- Complaints from the adjacent neighborhoods and surrounding communities due to inappropriate behavior, language, loud music, etc. by AAC personnel entering or exiting the complex.

In all likelihood there will be more than one AAC working at WSOC at one time. Each AAC is responsible for ensuring that their personnel limits their presence to the AAC's work areas and designated toilet, smoking and parking areas. Worker's found wandering outside their designated areas could potentially be asked to leave the complex.

### **Work under this Contract**

Asbestos Abatement: AAC shall remove all ACM and designated non-ACM materials as detailed herein.

Abatement Project Monitoring: The AAC shall provide and pay for post abatement visual inspections & air clearance monitoring.

Exterior Scaffolding/Lift: The AAC is responsible for providing appropriate lifts and/or staging to access exterior portions of the work.

Electrical: The AAC shall provide temporary ground faulted power panels. The Owner will make arrangements to tie the panels into the building's electrical service. If power is not available to the building at the time of abatement, the Owner will provide 100 AMP ground faulted panels at each floor in the interior corridors of adjacent building not scheduled for demolition.

Selective demolition: The AAC shall demolish wet walls and other chases to a degree that will allow unobstructed access to all TSI and debris within these areas.

### **Owner-Provided Services**

The Owner will provide the following support services for the Work:

Water Supply: The Owner will provide a cold water connection in the building. The AAC shall provide sufficient industrial grade water hoses to access the work areas.

Toilet Facilities: The Owner will designate toilet facilities to be utilized by AAC's personnel. These facilities may be a considerable distance from the work areas. The AAC is responsible for keeping these areas clean.

Snow Removal: The Owner will be responsible for snow removal around the perimeter of the building to access the exterior windows.

Selective Pre-Abatement Interior Demolition: The Owner will arrange to have all necessary mechanical, electrical, plumbing, suspended ceilings, miscellaneous wiring and cables removed from the work areas prior to the arrival of abatement personnel. This also includes removal of partition walls with the exception of the top and bottom plates that are in contact or will potentially disturb the ACM ceiling glue daubs or ACM flooring materials. Wet walls and mechanical chases potentially containing ACM pipe and fitting insulation will not be removed by Owner.

### **Notifications & Permits**

The AAC shall be responsible for providing all notifications and obtaining all permits relating to asbestos abatement as required by local, state and federal agencies.

### **Disposal of Non-ACM Waste**

The AAC is responsible for placing all non-ACM waste into an Owner supplied dumpster for waste generated by AAC activities.

### **Change Orders**

If additional Work is discovered during the course of project, the AAC shall contact the Owner's representative prior to executing the additional work. A decision will be made by the Owner as to how the additional work will be executed. If the Work is in fact "additional" and the Owner requires the Work to be performed, an agreed upon sum will be utilized as a basis of compensation. All change orders must be approved in writing.

### **Tobacco Products**

The use of tobacco products is prohibited inside any State Building. AAC's personnel shall limit tobacco use to designated smoking areas outside the building (minimum 20 feet away from any building).

### **Substantial Completion**

Substantial completion will be achieved when the Work areas have been successfully visually inspected and all AAC's equipment & materials (including asbestos waste) have been removed from the site.

### **Damages**

Excessive damage to Owner's property will result in a back charge to the AAC for repair or replacement of damaged property. Care must be taken to avoid damage to historic brick and other historic components; especially when removing exterior window caulk. This also applies to lawn repair if the AAC's personnel have driven on it.

### **Project Closure Documents**

Owner shall hold AAC's final payment until the following documents have been received by the Owner:

- Asbestos Waste Disposal Receipts;
- Asbestos Waste Shipment Records;
- Work Area Entry/Exit Signature Sheets;
- AAC's Project Supervisor Daily Written Project Logs;
- Copies of all Local, State and Federal correspondence, including but not limited to, notifications, permits, waiver requests, etc.;
- Copies of supervisor and worker paperwork, including but not limiting, Vermont Entity License, Supervisor and Worker Licenses, all relevant training certificates to document USEPA accreditation, medical monitoring documents, and respirator fit test sheets.
- Copies of all personal air monitoring data performed in accordance with OSHA 1926.1101.

### **Regulatory Requirements**

The AAC is responsible for performing all Work in strict accordance with applicable local, state and federal requirements. This includes but does not limit:

- Vermont Statute Annotated, Title 18, Chapter 26, Vermont Regulations for Asbestos Control “**VRAC**” as amended - State of Vermont
- Title 29, Code of Federal Regulations 1926-1101 - Construction Industry Standard for Asbestos - OSHA
- Title 29, Code of Federal Regulations 1910-134 - General Industry Standard for Respiratory Protection - OSHA
- Title 40, Code of Federal Regulations Part 61, Subpart M - National Emission Standards for Hazardous Air Pollutants “Asbestos **NESHAP**” - U.S. EPA



## **ASBESTOS ABATEMENT REQUIREMENTS**

Unless otherwise noted in the Design Document, the AAC shall, at a minimum, adhere to the following requirements. If at any time there is a conflict between this Design Document, drawings or a regulatory requirement, the more stringent requirement shall prevail and be adhered to.

### **Danger Signs**

Asbestos danger signs in accordance with OSHA 1926.1101, shall be displayed at all approaches to the work areas. Danger signs shall be in English, Spanish and other languages as necessary for all personnel to comprehend.

### **HVAC Equipment**

All HVAC equipment in or passing through the work area shall be shut down. Measures shall be taken to prevent accidental start-up of HVAC systems.

### **Worker Decontamination Enclosure System**

A worker decontamination enclosure system consisting of a clean room, shower room and equipment/dirty room, each separated from each other by airlocks, accessible through doorways protected with at least two (2) overlapping polyethylene sheets shall be provided. Except for the doorways, the worker decontamination enclosure system shall be airtight. All entry and exit from the work area shall be through this system, including a thorough showering before entering the clean room while exiting the work area. Clean disposable towels, soap, and shampoo shall be available throughout the project. Filtered waste water shall be properly discharged in accordance with applicable codes. The sequence of entering and exiting the worker decontamination enclosure system shall be in accordance with VRAC APPENDIX A – Work Area Entry and Exit Procedures.

### **Floor Sheeting**

Floor sheeting shall completely cover all floor surfaces and consist of two (2) layers of 6 mil. fire retardant polyethylene sheeting. Floor sheeting shall extend up sidewalls at least 12 inches and be sized to minimize seams. No seams shall be located at a wall-to-floor joint. To capture gross debris, a drop cloth layer of 6 mil. poly sheeting shall be placed on top of the floor sheeting beneath ACM designated for removal. Floor sheeting shall be disposed of as asbestos waste.

For carpeted areas, one critical barrier poly sheet and two poly layers of floor sheeting are required.

### **Wall Sheeting**

Wall sheeting shall completely cover all wall surfaces not scheduled for demolition and consist of one (1) layer of 6 mil. fire retardant polyethylene sheeting. Wall sheeting shall be installed to minimize joints and shall extend beyond the wall/floor joint at least 12 inches. No seams shall be located at a wall-to-wall joint. Wall sheeting shall be disposed of as asbestos waste.

Wall sheeting may be omitted on smooth painted wall surfaces where the paint is intact.

### **Negative Pressure Enclosure**

Negative pressure filtration units (NPFU) with HEPA filtration shall be provided in sufficient quantities to provide an air change in the work area every 15 minutes. The filtered NPFU exhaust shall be vented to the outside of the building (away from any fresh air intake louvers). **The Project Monitor will conduct particle counting at the NPFU exhaust to ensure the HEPA filters and/or seals are operating correctly. In the event that particle counting reveals elevated particles in the exhaust air, the AAC shall remove the NPFU from the site and replace with a properly operating unit.** Before beginning work within the enclosure, and at the beginning of each shift, the negative pressure enclosure shall be inspected for breaches and smoke tested for leaks. Any leaks found must be immediately sealed before further work can occur. A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, shall be maintained within the negative pressure enclosure, as evidenced by manometric measurements.

### **Temporary Lighting**

The AAC shall provide temporary UL rated lighting throughout the work areas sufficient to properly illuminate each area, room and corridor as needed. Refer to OSHA requirements for specific details on quantities of lights needed.

### **Asbestos-Containing Flooring Mastic Removal**

The AAC shall continually monitor the floor below where mastic removal by solvents is occurring. If there are leaks/spills to the floor below, the AAC shall immediately place poly drop cloths beneath the areas that are leaking and place poly over building components that are being leaked on. The AAC is responsible for cleaning all mastic residue from ceiling deck surfaces and other building components that are affected by these leaks/spills.

### **Disposal Containers**

ACM waste shall be placed into two 6 mil. polyethylene containers or double wrapped in 6 mil. polyethylene, each bag/layer independently sealed, for transport to the authorized landfill. These containers shall have proper danger wording in accordance with OSHA 1926.1101, proper shipping labels in accordance with the Department of Transportation, and be properly tagged in accordance with US EPA's Asbestos NESHAP. All waste containers shall be removed from the work area on a daily basis and prior to visual inspection by the Owner's designated Asbestos Project Monitor. Large and/or sharp components shall be wrapped in two layers of 6 mil. polyethylene sheeting with proper labels.

### **Final Walkthrough**

The AAC's project supervisor, Owner's designated project monitor and the Owner shall tour the work areas at completion of each area. Excessive damage by AAC's operations will be noted and repair work will be conducted by the General Contractor. Costs associated with restoration of damaged areas will be deducted from AAC's contract as a Change Order.

## **GENERAL SAFETY REQUIREMENTS**

The AAC shall perform all work during this project in a safe manner. All OSHA construction industry safety standards shall be strictly adhered to. The State has contracted with PC Construction to conduct all construction management duties. While working at the Waterbury State Office Complex site, the AAC shall adhere to all PC Construction's safety requirements. This includes attending a contractor safety orientation training provided by PC Construction prior to commencement of work at the Complex. **The following items are not intended to be a complete list of all safety requirements.**

### **OSHA Training**

**Mandatory** - All Supervisors working at the site are required to have OSHA 30 hour training for construction. All workers working at the site are required to have OSHA 10 hour training for construction.

### **Material Safety Data Sheets**

The AAC shall provide Material Safety Data Sheets (“**MSDS**”) for all hazardous materials/substances that will be used on this project. The MSDS shall be on-site in the project supervisor's project log. Copies of the MSDS shall be provided to the Owner at project completion.

### **Respiratory Protection**

The AAC shall have a Respiratory Protection Program on-site at all time. All of the AAC's personnel shall strictly abide by this program. At a minimum, the Respiratory Protection Program shall include:

- personal air exposure monitoring requirements in accordance with OSHA
- medical monitoring program
- selection of respirators
- fitting of respirators
- qualitative and/or quantitative fit check requirements

### **Exposure Assessments and Monitoring**

The AAC shall fully comply with OSHA 1926.1101 paragraph (f) Exposure assessments and monitoring. This will include, but not limit, daily exposure monitoring to determine a representative 8 hour time weighted average and 30 minute short term exposure. Air samples shall be piggy-backed as necessary to avoid overloaded samples. AAC to supply sufficient personal air sampling pumps, calibrators and PCM cassettes. **The Project Monitor may randomly select an affected worker(s) at different times of the project and place a “project monitor/consultant” supplied personal air sampler and PCM cassette(s) on them, to monitor their activity.**

### **Local Emergency Response Personnel**

The AAC shall notify the local fire department, police department and rescue department and make them aware of the project, give them a description of the project and the proposed work days and work hours. The AAC shall obtain the emergency response department phone numbers which shall be posted at the entrance to the decon units and adjacent to the nearest phone. In accordance with VRAC, the local Health Officer's name and phone number shall be posted as well.

## PROJECT-SPECIFIC SEQUENCE & PROCEDURES

All work shall be conducted in strict accordance with this Design Document, the Vermont Regulations for Asbestos Control Sections 2.4, and 6, OSHA 1926.1101 Class I and II Asbestos requirements, and all other local State and Federal requirements that apply.

### Sequence and Procedures

The AAC shall obtain an asbestos project permit from the Vermont Department of Health (where required). The AAC shall also provide written alternative request letters to the VDH for variances to VRAC; i.e. the use of 2 stage worker decons where applicable, removing exterior glazing and caulk materials in accordance with VRAC Section 6 requirements, wrapping of fire doors, etc. **NOTE: All interior work shall be completed before exterior windows are abated.**

The AAC shall perform the Work in the following manner for all buildings:

- ✱ Post “Danger Asbestos Signs” at the entrances to each affected room or area and at the entrances to each floor of the building.
- ✱ Erect a 3-stage worker decontamination structure at the entrance to each affected area as shown on the drawings. Configuration and placement of decons can be rearranged to meet field conditions.
- ✱ Erect a waste load-out structure where shown on the drawings. Configuration and placement of the waste load-out can be rearranged to meet field conditions.
- ✱ Pre-clean and install critical barriers as required.
- ✱ Mobilize NPFU’s and hookup vents for outdoor exhaust.
- ✱ Regulate the affected area(s) and setup containment barriers within.
- ✱ In all locations where flooring mastic will be removed by solvents, install poly splash guards from the floor to a minimum of 4 feet up the wall. AAC responsible for cleaning mastic residue from surfaces that mastic is splashed on.
- ✱ Contact Owner’s Asbestos Project Monitor (PM) to conduct a containment inspection before removal activities commence.
- ✱ When containment has been properly erected and passed the Owner’s PM inspection, establish negative pressure, don proper PPE and begin removal activities.

For specific material removal methods, see the breakdown of each building below. Once removal activities are complete:

- ✱ Clean work area(s) until no visible dirt, dust and debris remains.
- ✱ Once the work areas have dried, the AAC’s independent PM shall conduct visual inspections of the completed work. The AAC shall notify the Owner’s PM when final visual and air sampling will be performed.
- ✱ Once visual inspections have been successfully achieved, the AAC’s PM shall collect final air samples for PCM analysis (where applicable).
- ✱ Once the air samples have passed the clearance criteria (where applicable), remove all polyethylene barriers and conduct a post abatement cleaning of area.
- ✱ Leave an operational 3-stage decon for the workers abating the exterior materials and for wrapping the fire doors.

## **Building 1/2/3 South**

The work includes, but does not limit, removal, proper transport and disposal of:

- 100 sq.ft. +/- Asbestos cement board (ground floor)
- 150 sq.ft. +/- Debris and dirt in mechanical area (ground floor)
- 1200 sq.ft +/- Vinyl floor tile and associated black mastic (three stair towers)
- 6000 sq.ft +/- Flooring plaster, which includes removal of multiple sub-flooring layers as well
- 60 ln.ft. +/- Non-fiberglass pipe and fitting insulation
- 90 ln.ft. +/- Non-fiberglass pipe and fitting insulation potentially in wet walls
- 20 each +/- Fire doors
- 105 each +/- Windows with asbestos-containing caulk and glazing

### **Ground Floor**

- ✱ Setup decons where shown on Drawing 1/2/3S-AA-G. 2 stage remote decons are permitted if granted a variance from the Vermont Department of Health.
- ✱ Utilizing wet methods, remove and dispose of all asbestos cement board and pipe fitting insulation from the transformer room (coordinate a time with Owner when the power can be shut down in the transformer room).
- ✱ Utilizing wet methods, remove and dispose of pipe and fitting insulation from the abandoned stairwell.
- ✱ Utilizing wet methods, remove and dispose of all vinyl floor tile and mastic from three stair towers (from ground floor to top floor).
- ✱ With regards to the mechanical plenum areas, the drawing does not show NPFU's due to size constraints. The AAC shall configure vent tubing to ensure that HEPA filtered negative pressure is achieved in these areas. These areas are considered confined spaces per OSHA. Utilizing wet methods, remove and dispose of garbage and debris from the fan shaft plenums. This includes removal and proper disposal of top two inches of dirt. Thoroughly clean chambers at conclusion.

### **1<sup>st</sup> and 2<sup>nd</sup> Floors**

- ✱ Setup decons where shown on Drawing 1/2/3S-AA-1 and 1/2/3S-AA-2.
- ✱ Utilizing wet methods, remove and dispose of pipe and fitting insulation throughout the floors. The drawings indicate one containment, however the AAC may split the floors up into multiple containments.
- ✱ Utilizing wet methods, remove and dispose of all vinyl floor tile and mastic from stair towers.
- ✱ On the 2<sup>nd</sup> floor porch area, remove and dispose of asphalt remnants from a few small locations on the brick. Do not damage the brick during removal. Remove in accordance with VRAC Section 6.
- ✱ In the 2<sup>nd</sup> floor center bathrooms, remove and dispose of the raised floors and any vinyl flooring beneath.
- ✱ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

### **3<sup>rd</sup> Floor**

- ✱ Setup decon where shown on Drawing 1/2/3S-AA-3.
- ✱ Once setup is complete remove demarcated non-ACM gypsum wallboard and dispose of as C&D waste.
- ✱ Utilizing wet methods, remove and dispose of pipe and fitting insulation throughout the floors. The drawing indicates one containment, however the AAC may split the floor up into multiple containments.
- ✱ Utilizing wet methods, remove and dispose of all vinyl floor tile and mastic from stair towers.
- ✱ Utilizing wet methods, remove all layers of sub-flooring down to original wood floor. This includes removing flooring plaster (contains less than 1% asbestos), vinyl flooring materials, carpets, floor leveling compounds, mastics, adhesives. With the exception of clean wood, package and dispose of all other materials as asbestos waste.
- ✱ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

### **Building 4 South**

The work includes, but does not limit, removal, proper transport and disposal of:

- 230 sq.ft. +/- Rubber flooring over vinyl floor tile over asbestos-containing black mastic
- 39 each +/- Windows with asbestos-containing caulk and glazing
- 8 each +/- Fire doors
- 2 each +/- Caulk around exterior doors

### **Building 5 South**

The work includes, but does not limit, removal, proper transport and disposal of:

- 2720 sq.ft. +/- Carpet over plywood over vinyl asbestos floor tile
- 2150 sq.ft +/- Carpet or vinyl floor sheeting over vinyl asbestos floor tile
- 500 sq.ft +/- Carpet or vinyl floor sheeting over vinyl asbestos floor tile
- 60 sq.ft +/- Vinyl asbestos floor tile
- 4000 sq.ft +/- Gypsum wallboard and joint compound
- 41 each +/- Windows with asbestos caulk and glazing (drawing not provided for Ground fl. windows)
- 8 each +/- Fire doors

### **1<sup>st</sup> Floor**

- ✱ Setup decon where shown on Drawing 5S-AA-1
- ✱ Utilizing wet methods, remove all vinyl asbestos floor tile along with associated carpet, vinyl floor sheeting, plywood sub-flooring and etc.

- ✱ Utilizing wet methods, remove all gypsum wallboard. The AAC shall obtain a project permit from the VDH and have post abatement air monitoring performed.
- ✱ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

## **2<sup>nd</sup> floor**

- ✱ Setup decon where shown on Drawing 5S-AA-2
- ✱ Utilizing wet methods, remove all vinyl asbestos floor tile along with associated carpet. Remove in accordance with VRAC Section 6.
- ✱ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

## **Building 6/7 South**

The work includes, but does not limit, removal, proper transport and disposal of:

- 1600 sq.ft. +/- Popcorn decorative ceiling & gypsum board (less than 1% asbestos) - Ground floor
- 2100 sq.ft +/- Black flooring mastic - Ground floor
- 80 sq.ft. +/- Wall and ceiling plaster – Ground floor mechanical room (less than 1% asbestos)
- 1800 sq.ft. +/- Carpet over vinyl asbestos floor tile
- 4000 sq.ft +/- Flooring plaster, which includes removal of multiple sub-flooring layers as well
- 8 each +/- Fire doors

## **Ground Floor**

- ✱ Setup decon where shown on Drawing 6/7S-AA-G
- ✱ Utilizing wet methods, remove all popcorn decorative ceiling coating and the gypsum board it is applied to, all wall and ceiling plaster in the mechanical room, and all black flooring mastic where denoted on Design Drawing 6/7S-AA-G.

## **1<sup>st</sup> Floor**

- ✱ Setup decon where shown on Drawing 6/7S-AA-1
- ✱ Utilizing wet methods, remove all carpet and vinyl asbestos floor tile in accordance with VRAC Section 6 and OSHA Class II asbestos work requirements.
- ✱ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

## **2<sup>nd</sup> floor**

- ✱ Setup decon where shown on Drawing 6/7S-AA-2
- ✱ Utilizing wet methods, remove all layers of sub-flooring down to original wood floor. This includes removing flooring plaster (contains greater than 1% asbestos), vinyl flooring materials, carpets, floor leveling compounds, mastics, adhesives. Package, transport and dispose of all materials as asbestos waste with the exception of clean wood.

☼ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

## **Building 8/9 South**

The work includes, but does not limit, removal, proper transport and disposal of:

- 7 ln.ft. +/- Non-fiberglass pipe and fitting insulation
- 30 ln.ft. +/- Non-fiberglass pipe and fitting insulation potentially in wet walls
- 3000 sq.ft +/- Black flooring mastic and remnants (ground floor)
- 6000 sq.ft +/- Black flooring mastic with carpet and/or vinyl flooring and/or multiple sub-flooring materials
- 1 sq.ft +/- Steam valve gaskets (ground floor)
- 6 sq.ft. +/- Interior door caulk remnants (ground floor)
- 6 each +/- Fire doors

### **Ground Floor**

☼ Setup decon where shown on Drawing 8/9S-AA-G

☼ Utilizing wet methods, remove and dispose of all black flooring mastic, interior door caulk, thermal system insulation and a miscellaneous gasket. The AAC shall obtain a project permit from the VDH and have post abatement air monitoring performed.

### **1<sup>st</sup> Floor**

☼ Setup decon where shown on Drawing 8/9S -AA-1

☼ Demo wet walls enough to remove all non-fiberglass pipe and fitting insulation within wet wall cavity. Utilizing wet methods, remove all pipe and fitting insulation with wall cavity.

☼ Utilizing wet methods, remove all layers of sub-flooring necessary to access and remove all black flooring mastic. This includes removing flooring plaster (contains greater than 1% asbestos), vinyl flooring materials, carpets, floor leveling compounds, mastics, adhesives. Package, transport and dispose of all materials as asbestos waste with the exception of clean wood.

☼ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

### **2<sup>nd</sup> floor**

☼ Setup decon where shown on Drawing 8/9S -AA-2

☼ Utilizing wet methods, remove all layers of sub-flooring down to original wood floor. This includes removing flooring plaster (contains greater than 1% asbestos), vinyl flooring materials, carpets, floor leveling compounds, mastics, adhesives. Package, transport and dispose of all materials as asbestos waste with the exception of clean wood,

☼ Remove hinges from demarcated fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.



## **South Connector**

The work includes, but does not limit, removal, proper transport and disposal of:

- 3800 sq.ft +/- Remove multiple layers of flooring and sub-flooring, including mastics, carpet and/or vinyl flooring down to original floor.
- 20 ln.ft. +/- Non-fiberglass pipe and fitting insulation potentially in wet walls
- 26 each +/- Windows with asbestos caulk and glazing (drawing not provided for ground fl. windows)
- 4 each +/- Fire doors

### **1<sup>st</sup> Floor**

- ✱ Setup decon where shown on Drawing SC-AA-1
- ✱ Demo wet walls enough to remove all non-fiberglass pipe and fitting insulation within wet wall cavity. Utilizing wet methods, remove all pipe and fitting insulation with wall cavity.
- ✱ Utilizing wet methods, remove all layers of sub-flooring down to original floor. Package, transport and dispose of all materials as asbestos waste with the exception of clean wood.
- ✱ Remove hinges from fire doors and wrap in two layers of 6 mil polyethylene and properly label the doors for disposal.

### **Exterior Work**

The exterior work includes the bulk removal of asbestos-containing exterior window caulk. Work also includes complete removal of all window glazing, including removal and disposal of entire window frame, sash, trim, moldings, etc. In addition, work includes removal of all door frame caulk on exterior door frames.

Removal of windows will commence once the interior abatement is complete (or close to completion). Window removal must be coordinated with PC Construction. Once the windows are removed, PC Construction will have temporary enclosures installed over the window openings to prevent weather damage to the building interior. The AAC will be responsible for weather damage to the interior of the building(s) if they failed to coordinate the removal of the windows with PC Construction.

- ✱ Erect Danger or Caution tape around the perimeter of the work area sections. Post “Danger Asbestos Signs” along the barrier tape.
- ✱ Install 6 mil polyethylene sheeting outdoors from the building to a minimum of 10 feet away from the building.
- ✱ Install 6 mil polyethylene sheeting indoors beneath each affected window at a sufficient extent to capture any loose debris generated during removal of the window components.
- ✱ Erect staging or mobilize lifts.
- ✱ Ensure that an operational remote 3-stage worker decontamination structure is in place within the building. Establish a change area and locate immediately adjacent to the work area for wet wiping of

respirators and HEPA vacuum cleaning and removal of outer suit. Proceed to the closest 3-stage worker decontamination structure to remove respirator and inner suit and thoroughly wash hands and face.

- ✱ Remove storm windows (if present) and dispose of (recycle as required). The majority of windows have storm windows attached.

- ✱ Prior to removal activities, the AAC's Supervisor shall make a wind assessment. Removal activities shall not take place during excessive wind.

- ✱ Don proper PPE. At a minimum, this includes a ½ face negative pressure respirator and two (2) disposable work suits with head, foot and hand coverings.

- ✱ HEPA vacuum all loose caulk.

- ✱ Wet the exterior window caulk and then score the caulk with a razor knife or other tool. Safely remove mechanical fasteners that are securing the component to the brick or other substrate. Wet handscape the majority of residual caulk that remains on the brick or other substrate until visibly clean. **The AAC shall not damage the brick or other substrate when removing windows and residual caulk. The AAC shall be responsible for all monetary damages associated with repair or replacement of damaged brick or other substrate.** Thoroughly clean the window opening (or applicable door opening) until all visible suspect debris is removed.

- ✱ Thoroughly clean the window opening and prepare for a visual inspection by AAC's independent PM in accordance with VRAC Section 2.4.2 (Q).

## **FINAL AIR CLEARANCE MONITORING & ANALYSIS**

### **Clearance Air Monitoring**

The AAC's independent Project Monitor will conduct visual inspections and post abatement air monitoring utilizing analysis by phase contrast microscopy (PCM) after the work areas have been final cleaned and the areas have dried. Contact Owner's contracted Project Monitor each time the AAC's monitor has been contacted.

### **Aggressive Sampling**

Aggressive sampling shall begin after the work site has been wet-cleaned and HEPA-vacuumed and all polyethylene (except critical barriers) have been removed. The negative pressure filtration units will remain on. The air sampling pumps shall be located as indicated by the Asbestos Consultant's sampling design. Before any sampling begins, floor, ceilings, and walls shall be swept with the exhaust of a high-speed air-circulating device, such as a 1-horsepower, electrically operated leaf blower. This activity shall continue until the exhaust has been swept across all surfaces, or for at least 5 minutes per 1000 square feet of floor area. Stationary fans shall be placed at central locations in the work area so as to induce area wide circulation. In addition, the fans shall be directed at the ceiling and operated at low speeds so as to avoid high rates of airflow in the vicinity of the sampling equipment. One fan shall be used for each 10,000 cubic feet of space. The fan(s) shall be left on for the duration of sampling.

### **Air Sampling Protocol**

High volume sampling pumps shall be located in the work area so that they are not unduly influenced by the configuration of the space or by each other. Sampling pumps shall not be placed in room corners, under shelves, or in other locations where airflow is restricted.

Once the sampling equipment is in place, the location, time, filter number, pump number, and other pertinent information shall be recorded by the asbestos consultant. The end cap will be removed from the front of the cassette and the pump shall be started. After the pump is started, the flow rate shall be recorded and verified after 15-30 minutes of operation to guard against leaks and constrictions in the sampling train.

When the requisite sampling volume has been reached, the time, intermediate flow rate checks, and the final flow rate shall be recorded. Samples shall be delivered to the Vermont licensed asbestos laboratory for analysis without further treatment.

## **Calibration**

The sampling pumps shall be calibrated before and after each use to determine the actual flow rate of the pump. The flow rates shall then be averaged and recorded. A field rotometer shall be used to calibrate the pumps in the field before and after each use. The rotometer shall be calibrated by a primary standard so that an accurate flow rate is reported.

## **Laboratory Analysis**

Collected air samples shall be analyzed by a Vermont Certified Analytical Entity. Analysis of the samples shall be performed in accordance with NIOSH 7400 method (PCM) and 40 CFR Part 763 Appendix A to Subpart E (TEM).

## **Phase Contrast Microscopy (“PCM”)**

PCM is a technique using a light microscope equipped to provide enhanced contrast between the fibers collected and the background filter material. Samples for analysis by PCM are collected on a 25 mm mixed cellulose ester filter with a 0.8 to 1.2 micrometer pore size. Filters shall then be prepared by either a liquid chemical solution or an acetone vapor that renders the filter material optically transparent. The filter is then examined under a positive phase contrast microscope at a magnification of approximately 400 times. Fibers are sized and counted using a calibrated reticule fitting into the microscope eyepiece.

PCM is frequently referred to as the light microscope method, the filter membrane method, or the NIOSH method. Using this method, the analyst does not identify what materials the fibers are composed of, and only counts those fibers longer than 5 micrometers and wider than about 0.25 micrometers.

## ACRONYMS & DEFINITIONS

Abatement - Procedures to control fiber release from asbestos containing materials. Includes removal, encapsulation, enclosure, repair, demolition and renovation activities.

Airlock - A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways separated by a distance of at least 3 feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow- through contamination.

Air monitoring - The process of measuring the fiber content of a known volume of air collected during a specified period of time. The procedure normally utilized for asbestos follows the NIOSH Standard Analytical Method for Asbestos in Air Method 7400. For clearance air monitoring, electron microscopy methods may be utilized for lower detectability and specific fiber identification.

Air sampling professional - The professional (Vermont licensed asbestos project monitor) contracted conduct air monitoring and analysis schemes.

Amended water - Water to which a surfactant has been added.

Asbestos - The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthrophyllite, actinolite and tremolite.

Asbestos containing material (ACM) - Material composed of asbestos of any type and in an amount greater than 1% by weight, either alone or mixed with other fibrous or nonfibrous materials.

Asbestos containing waste material - Asbestos containing material or asbestos contaminated objects requiring disposal.

Authorized visitor - The Owner, Engineer and any representative of a regulator

Clean room - An uncontaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of worker's street clothes and clean protective equipment.

Curtained doorway - A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical side of the doorway and securing the vertical edge of the other sheet along the opposite vertical side of the doorway. Other effective designs are permissible.

Decontamination enclosure system - A series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers and equipment.

Encapsulant - A liquid material which can be applied to asbestos containing material which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

Encapsulation - The application of an encapsulant to asbestos containing materials to control the release of asbestos fibers into the air.

Enclosure - The construction of an air tight, impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.

Equipment decontamination enclosure system - The portion of a decontamination enclosure system designed for controlled transfer of materials and equipment into or out of the work area, typically consisting of a washroom and holding area.

Equipment room - A contaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of contaminated clothing and equipment.

Facility - Any institutional, commercial or industrial structure, installation or building.

Facility component - Any pipe, duct, boiler, tank, reactor, turbine or furnace at or in a facility or any structural member of a facility.

Fixed object - A piece of equipment or furniture in the work area which cannot be removed from the work area.

Friable asbestos - Asbestos containing material which can be crumbled to dust, when dry, by hand pressure.

Glovebag technique - A method with limited applications for removing small amounts of friable asbestos containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other surfaces in a non-contained (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. All workers who are permitted to use the glovebag technique must be highly trained, experienced and skilled in this method.

HVAC - Heating, ventilation and air conditioning system.

HEPA filter - A high efficiency particulate air filter capable of removing particles 0.3 microns in diameter with 99.97% efficiency.

HEPA vacuum - A vacuum system equipped with HEPA filtration.

Holding area - A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.

Initial Cleaning (Pre-Cleaning) – Pre-clean all surfaces in the work area using HEPA filtered vacuums and/or wet cleaning methods as appropriate. Do not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not disturb asbestos containing materials during the pre-cleaning phase. Pre-clean all moveable objects within the work area using a HEPA filtered vacuums and/or wet cleaning methods as appropriate. After cleaning, these objects shall be removed from the work area and carefully stored in an uncontaminated location. (This includes light fixtures). Pre-clean all fixed objects in the work area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. After pre-cleaning, enclosed fixed objects in 6 mil polyethylene sheeting and seal securely in place with tape.

Movable object - A piece of equipment or furniture in the work area which can be removed from the work area.

Negative pressure filtration unit (NPFU) - A portable exhaust system equipped with HEPA filtration.

NESHAP - The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

Plasticize - To cover floors and walls with plastic sheeting as herein specified.

Removal - The stripping of any asbestos containing materials from surfaces or components of a facility.

Renovation - Altering in any way one or more facility components. Operations in which load supporting structural members are wrecked or taken out are excluded.

Shower room - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

Staging area - Either the holding area or some area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.

Strip - To take off friable asbestos materials from any part of a facility.

Structural member - Any load supporting member of a facility, such as beams and load supporting walls or any member which is not load supporting, such as ceilings and walls which are not load supporting.

Surfactant - A chemical wetting agent added to water to improve penetration.

TSI – Thermal system insulation

Visible emissions - Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

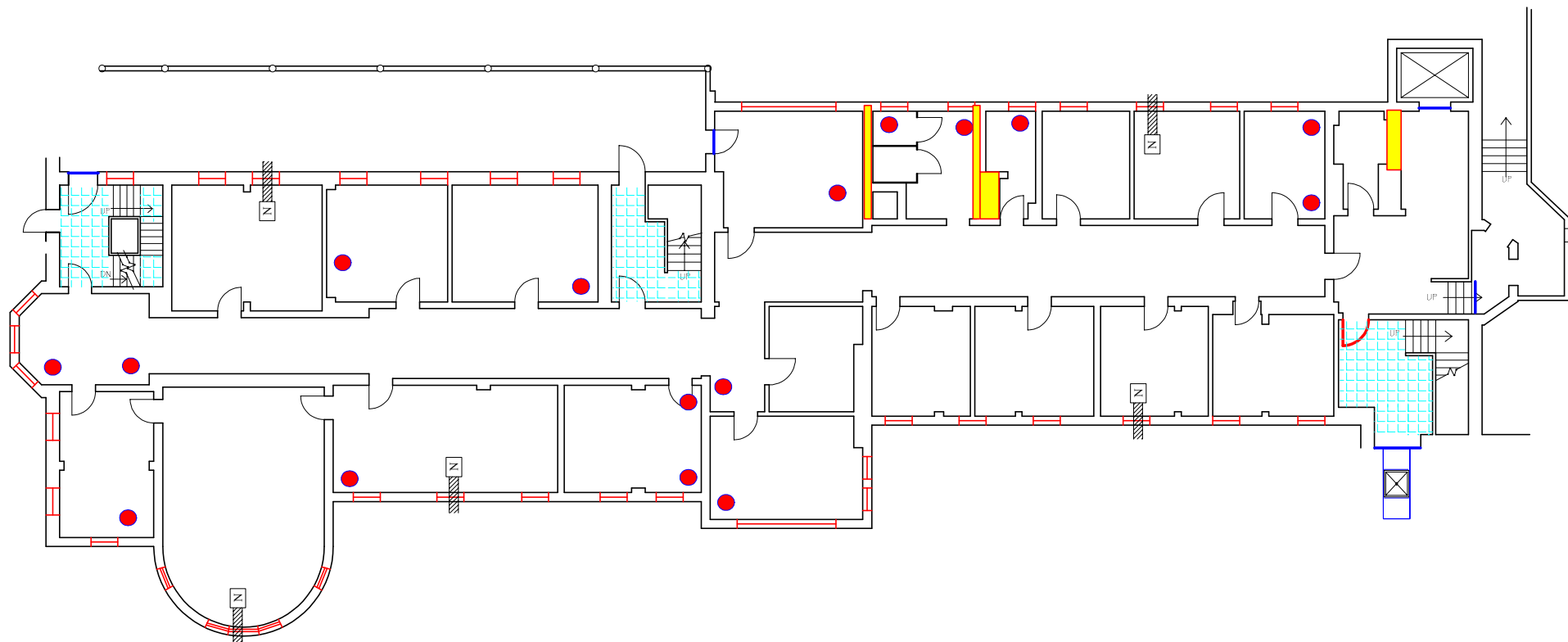
Waste transfer airlock - A decontamination system utilized for transferring containerized waste from inside to outside of the work area.

Wet cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.








Wet walls – Typically inaccessible spaces that contain the buildings plumbing pipes.

Work area - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled access work area which has not been plasticized nor equipped with a decontamination enclosure system.

Worker decontamination enclosure - A decontamination system consisting of a clean room, a shower room, and an equipment room separated from each other and from the work area by airlocks and curtained doorways. This system is used for all worker exits and exists in the work area and for equipment and waste pass out for small jobs.



### Legend

-  - Window caulk and glazing to be removed (44 windows +/-). (Only remove bulk of caulk; DO NOT DAMAGE brick or other substrate when removing caulk).
-  - Indicates one or more fittings with asbestos-containing insulation to be removed {20 ln.ft. +/-}. Remove ALL fitting insulation from this floor whether or not it is specifically demarcated on the drawing.
-  - Vinyl floor tile & mastic to be removed from stair landings 300 sq.ft. +/- (Make sure material is removed in stairwell from basement to attic)
-  - Wet walls with 30 ln.ft. +/- presumed asbestos pipe & fitting insulation to be removed. Demo walls as necessary to access ACM.
-  - HEPA filtered negative pressure filtration unit vented to out doors (Approximate locations and quantities)
-  - 3 stage decon with shower
-  - Critical Barrier

Prepared by:



**CROTHERS** Environmental Group, LLC

29 Duncan Road  
Morrisville, Vermont  
802-888-1936

**Waterbury State Office Complex**

103 South Main Street - Waterbury, Vermont

**Building 1/2/3 South - 1st floor**

**Asbestos Abatement Design Drawing**

Not to scale

July 30, 2013

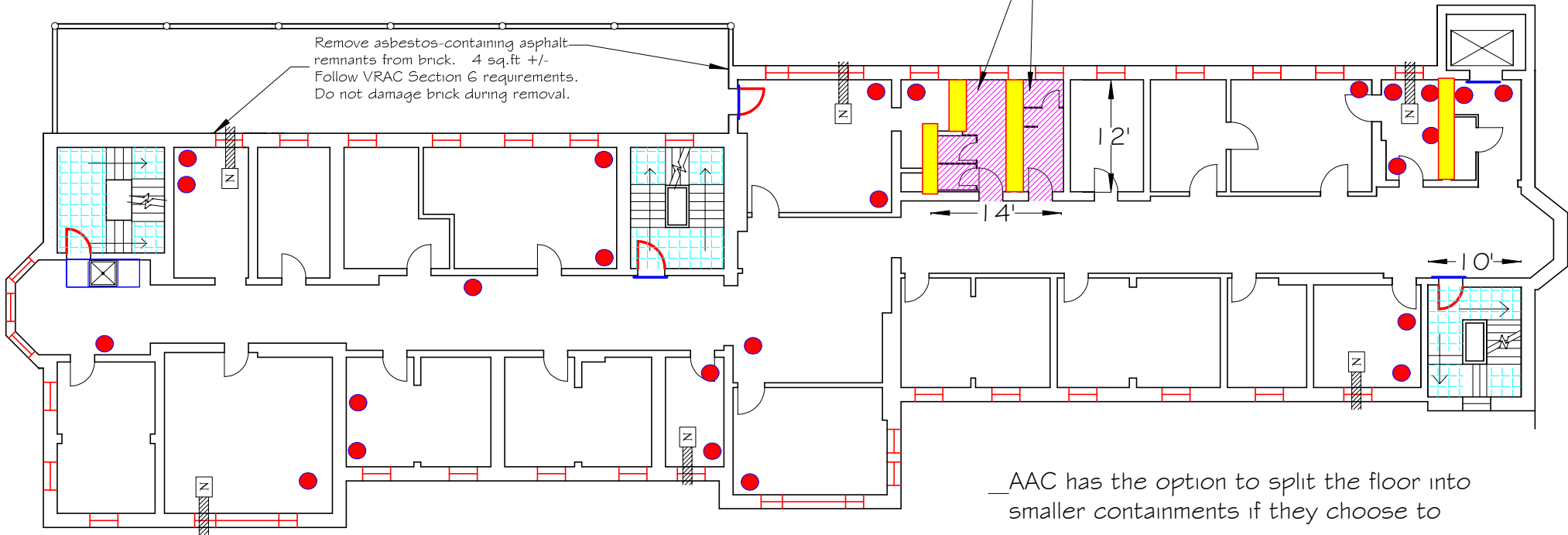
**1/2/3S-AA-1**













AAC shall demolish raised floors in bathrooms and remove vinyl flooring beneath (if present)

Remove asbestos-containing asphalt remnants from brick. 4 sq.ft +/-  
Follow VRAC Section 6 requirements.  
Do not damage brick during removal.



AAC has the option to split the floor into smaller containments if they choose to

### Legend

-  - Window caulk and glazing to be removed (43 windows +/-).  
(Only remove bulk of caulk; DO NOT DAMAGE brick or other substrate when removing caulk).
-  - Indicates one or more fittings with asbestos-containing insulation to be removed {30 ln.ft. +/-}. Remove ALL fitting insulation from this floor whether or not it is specifically demarcated on the drawing.
-  - Vinyl floor tile & mastic to be removed from stair landings 300 sq.ft. +/-  
(Make sure material is removed in stairwell from basement to attic)
-  - Fire doors to be removed - 4 each +/-
-  - Wet walls with 30 ln.ft. +/- ) presumed asbestos pipe & fitting insulation to be removed. Demo walls as necessary to access ACM.
-  - HEPA filtered negative pressure filtration unit vented to out doors  
(Approximate locations and quantities)
-  - 3 stage decon with shower
-  - Critical Barrier

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Waterbury State Office Complex

103 South Main Street - Waterbury, Vermont

**Building 1/2/3 South - 2nd floor**

**Asbestos Abatement Design Drawing**

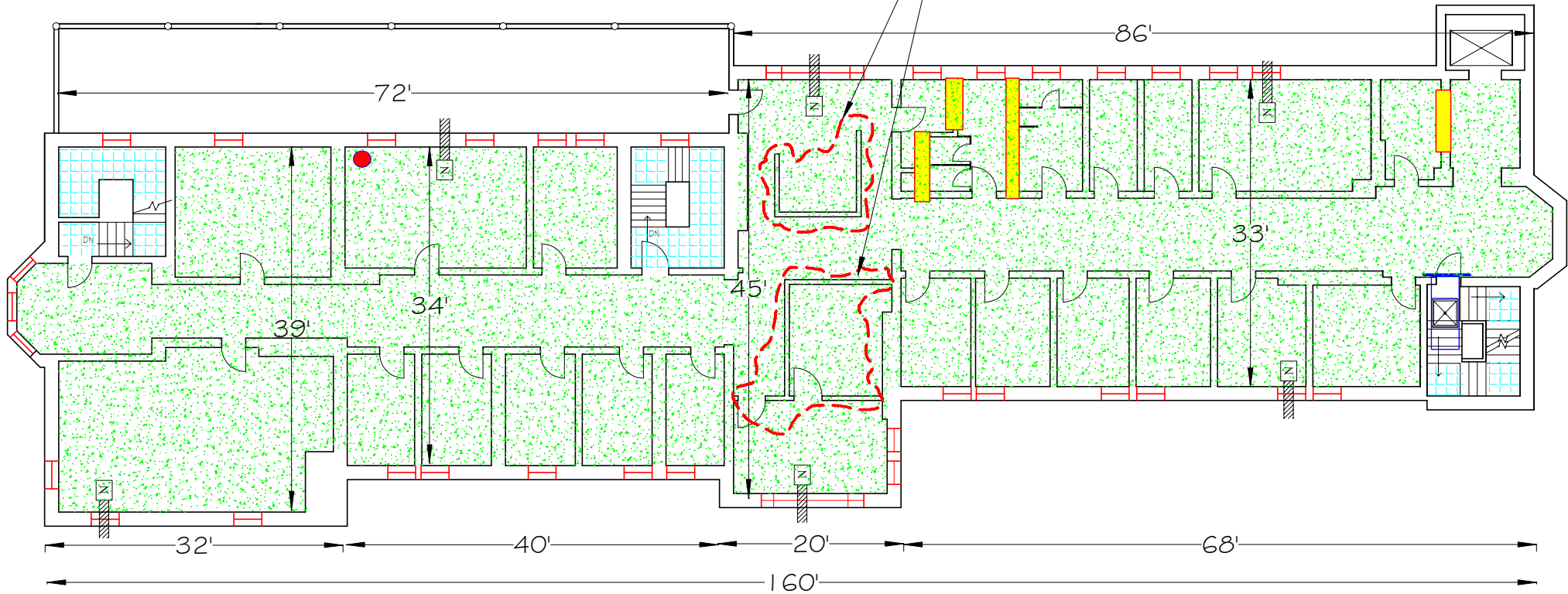
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July 30, 2013

**1/2/3S-AA-2**



Remove partition walls and  
dispose of as non-ACM waste



### Legend

- Remove multiple layers of sub-flooring down to original wood floor. This includes removing flooring plaster (contains less than 1% asbestos), vinyl flooring materials, mastics and adhesives. With the exception of clean wood, package and dispose of as asbestos waste. (6500 sq.ft. +/-)
- Vinyl floor tile & mastic to be removed from stair landings 300 sq.ft. +/- (Make sure tile is removed in stairwell from basement to attic)
- Window caulk and glazing to be removed (39 windows +/-). (Only remove bulk of caulk; DO NOT DAMAGE brick or other substrate when removing caulk).
- Indicates one or more fittings with asbestos-containing insulation to be removed {6 ln.ft. +/-}. Remove ALL fitting insulation from this floor whether or not it is specifically demarcated on the drawing.
- Fire doors to be removed - 4 each +/-
- Wet walls with 30 ln.ft. +/- presumed asbestos pipe & fitting insulation to be removed. Demo walls as necessary to access ACM.

AAC has the option to split the floor into  
smaller containments if they choose to

- HEPA filtered negative pressure filtration unit  
vented to out doors  
(Approximate locations and quantities)

- 3 stage decon with shower

- Critical Barrier

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**Waterbury State Office Complex**

103 South Main Street - Waterbury, Vermont

**Building 1/2/3 South - 3rd floor**

**Asbestos Abatement Design Drawing**

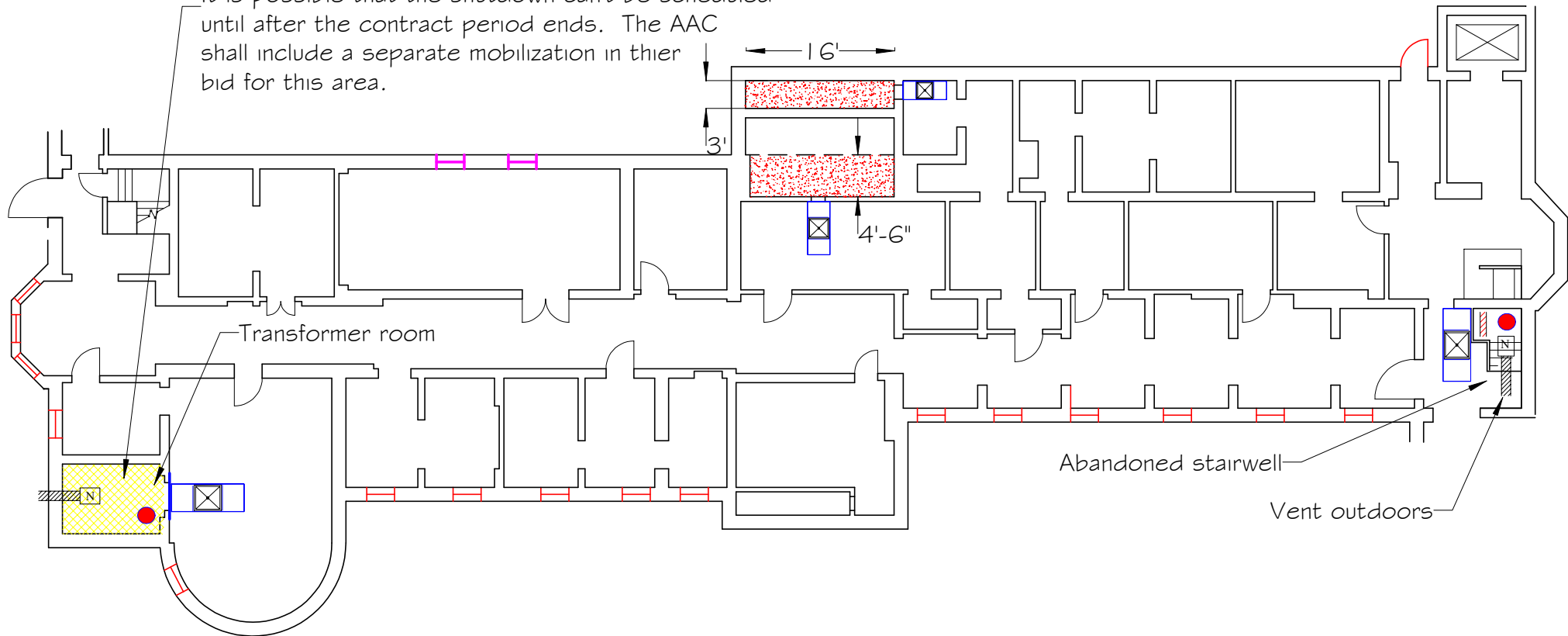
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July 30, 2013

**1/2/3S-AA-3**



A shutdown of the main power will be required before removing asbestos materials in this room. It is possible that the shutdown can't be scheduled until after the contract period ends. The AAC shall include a separate mobilization in their bid for this area.



### Legend

- Window caulk to be removed (16 windows +/-). (Only remove bulk of caulk; DO NOT DAMAGE granite or other substrate when removing caulk).
- Window caulk and glazing to be removed (2 windows +/-). (Only remove bulk of caulk; DO NOT DAMAGE brick or other substrate when removing caulk).
- Indicates six or more fittings with asbestos-containing insulation to be removed {2 ln.ft. +/-}. Remove ALL fitting insulation from this floor whether or not it is specifically demarcated on the drawing.
- Pipe insulation  
2 ln.ft. +/- to be removed
- Fire doors to be removed 6 each +/-
- Transite ceiling and partial walls to be removed  
100 sq.ft. +/-
- Clean mechanical crawl spaces. Remove top two inches of dirt along with any garbage and debris on the dirt. Will require post abatement visuals and PCM air samples. Confined space requirements apply.

### Legend

- HEPA filtered negative pressure filtration unit vented to out doors (Approximate locations and quantities)
- 3 stage decon with shower
- Critical Barrier

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Morrisville, Vermont  
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**Waterbury State Office Complex**

103 South Main Street - Waterbury, Vermont

**Building 1/2/3 South - Ground floor**

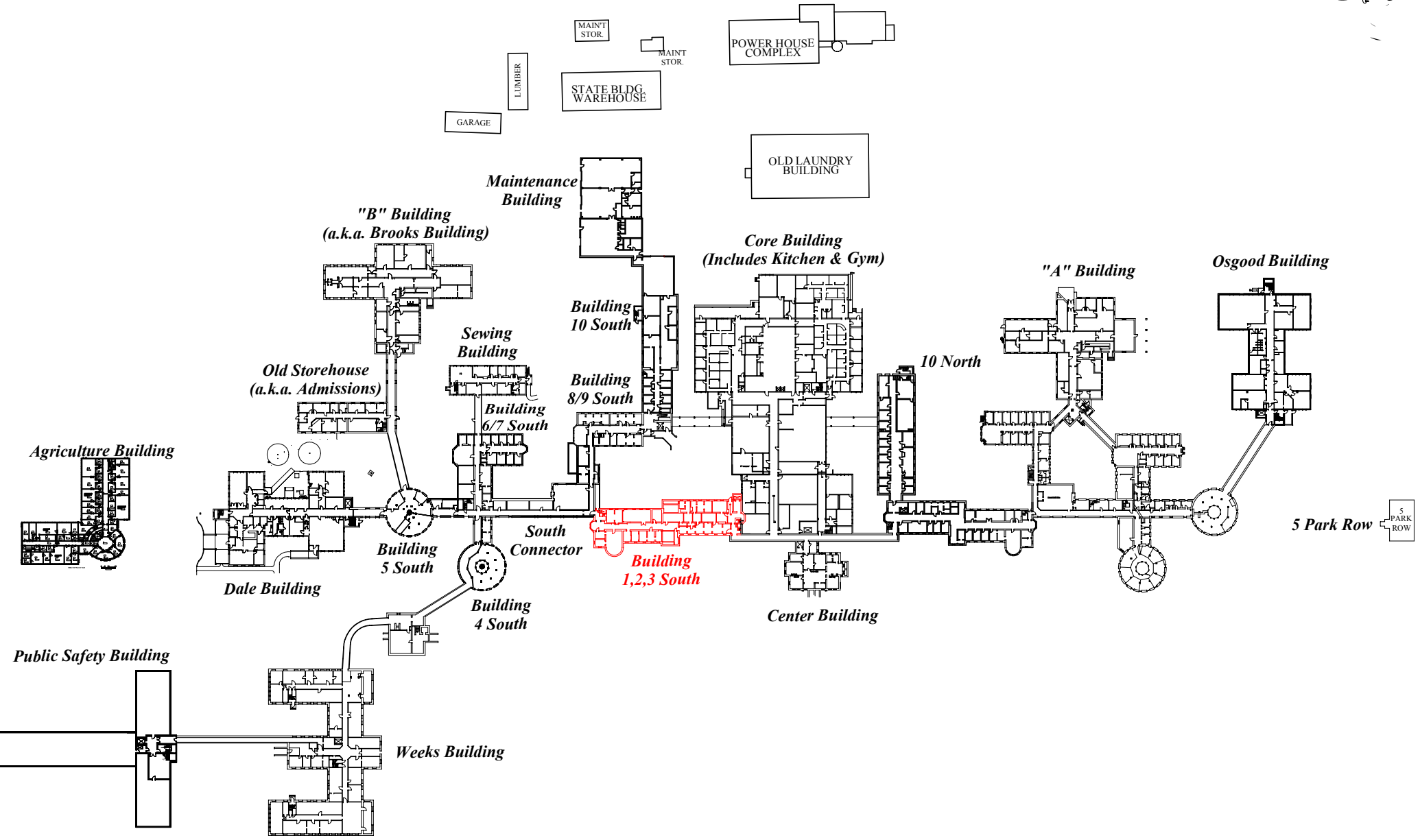
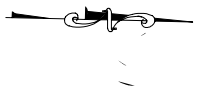
**Asbestos Abatement Design Drawing**

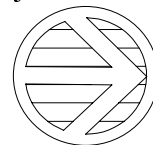
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July 30, 2013


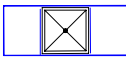




**1/2/3S-AA-G**

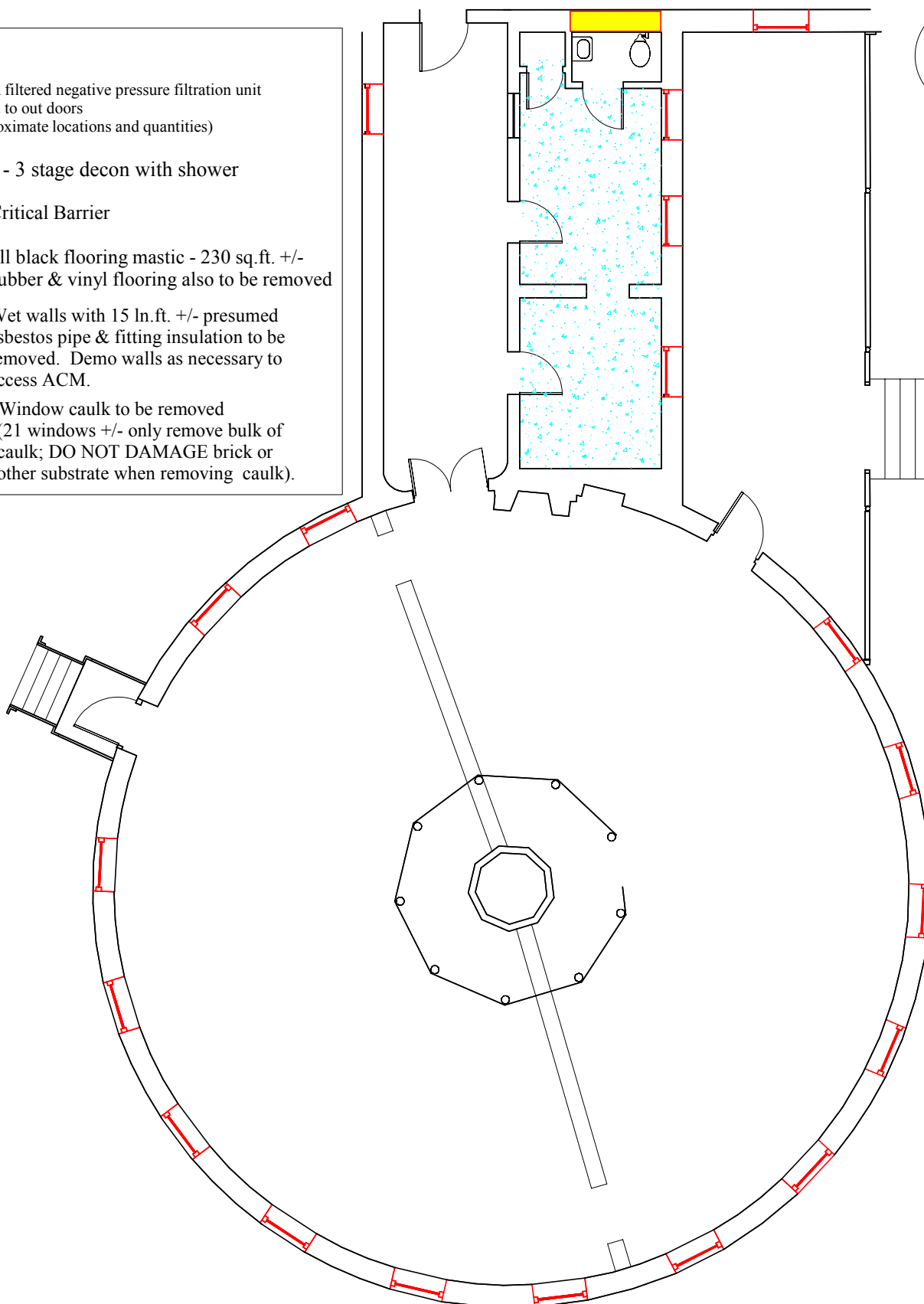
Project North





## Legend

-  - HEPA filtered negative pressure filtration unit vented to out doors  
 (Approximate locations and quantities)
-  - 3 stage decon with shower
-  - Critical Barrier
-  - All black flooring mastic - 230 sq.ft. +/-  
 Rubber & vinyl flooring also to be removed
-  - Wet walls with 15 ln.ft. +/- presumed asbestos pipe & fitting insulation to be removed. Demo walls as necessary to access ACM.
-  - Window caulk to be removed  
 (21 windows +/- only remove bulk of caulk; DO NOT DAMAGE brick or other substrate when removing caulk).



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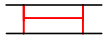
**Building 4 South - 1st Floor***Asbestos Abatement Design Drawing*

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July 30, 2013

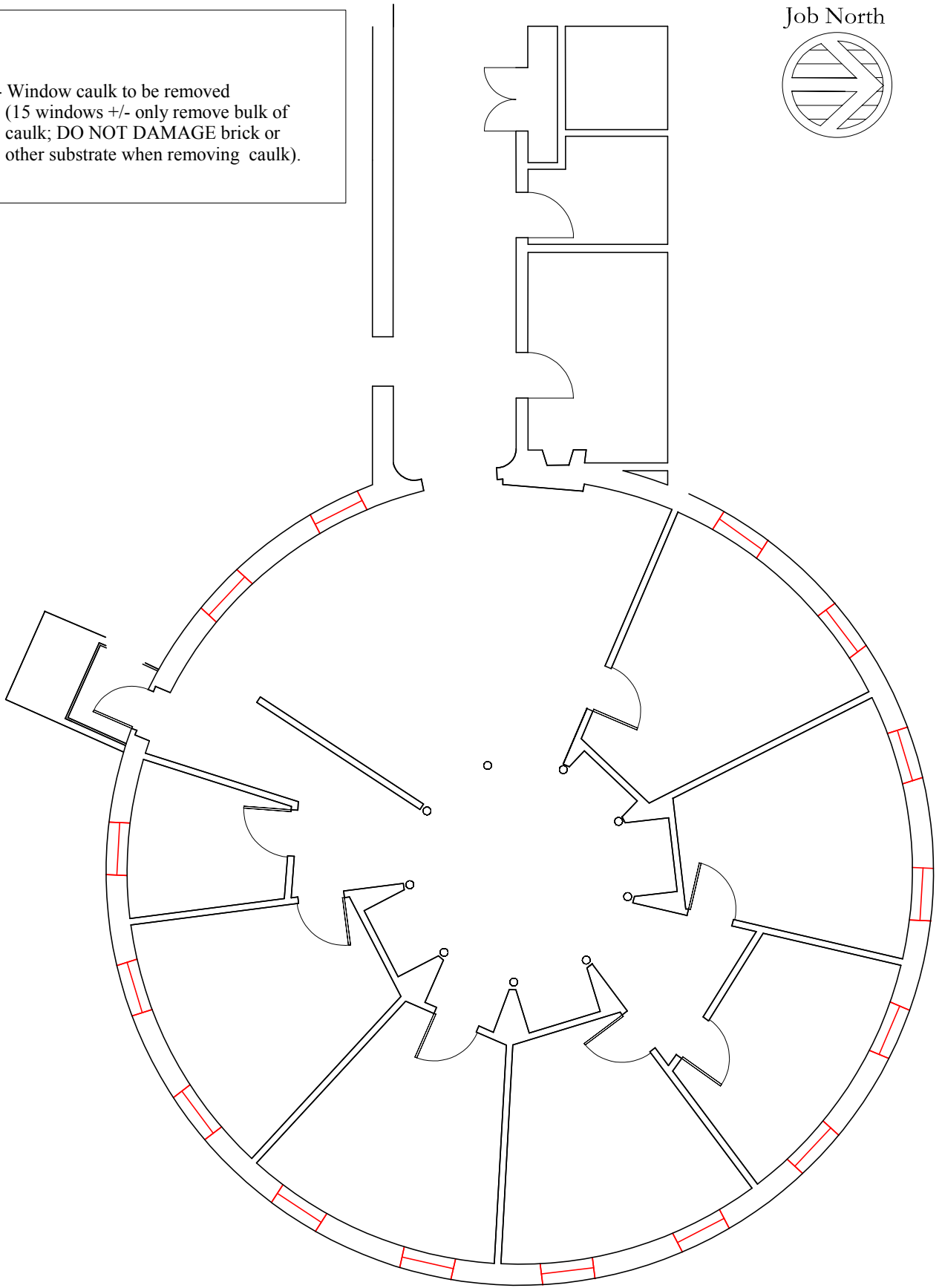
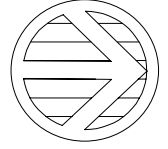
**4S-AA1**

# Legend



- Window caulk to be removed  
(15 windows +/- only remove bulk of  
caulk; DO NOT DAMAGE brick or  
other substrate when removing caulk).

Job North



Prepared by:



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Waterbury State Office Complex  
103 South Main Street - Waterbury, Vermont

**Building 4 South - 2nd Floor**

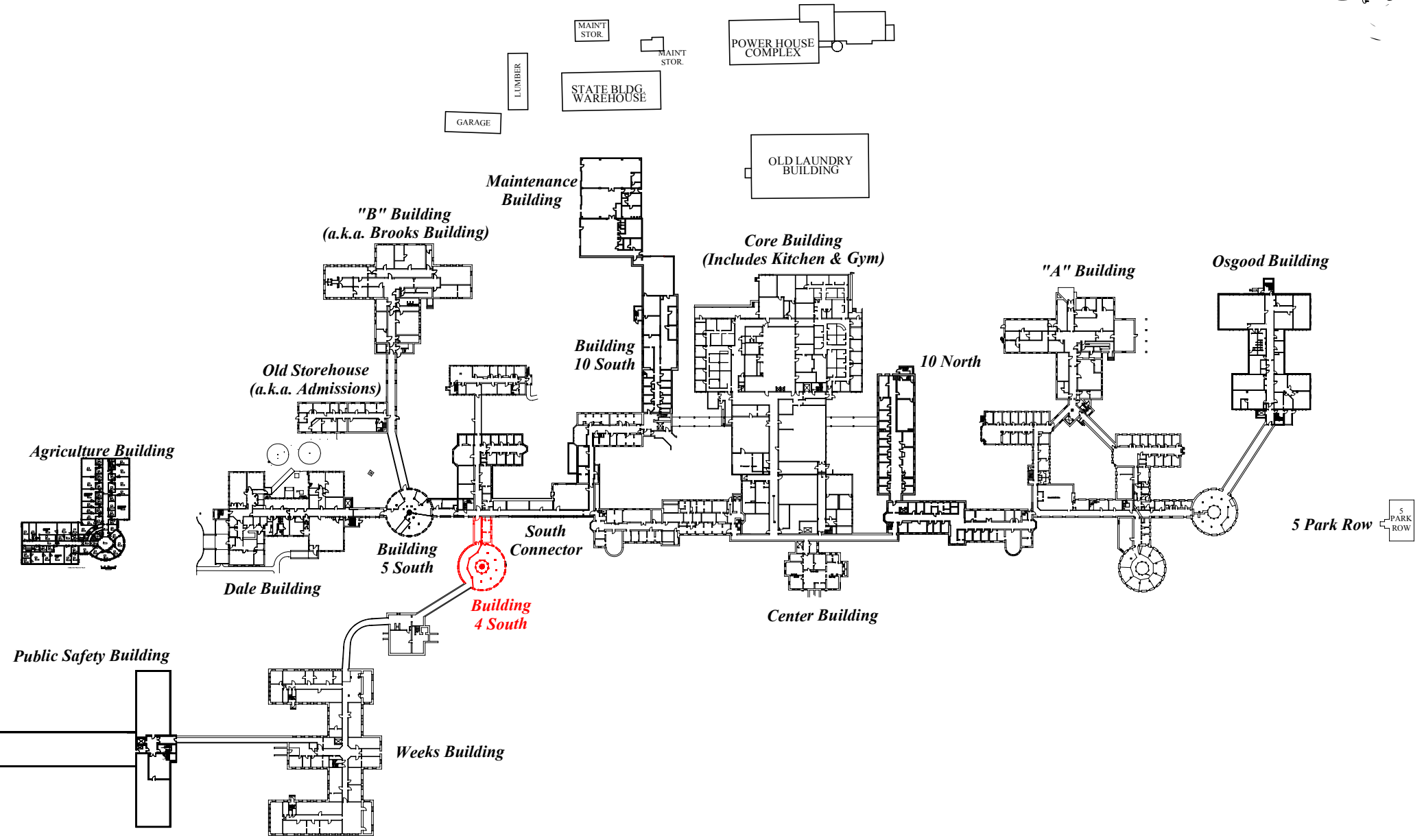
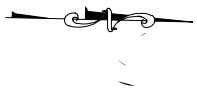
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July 30, 2013

**4S-AA2**

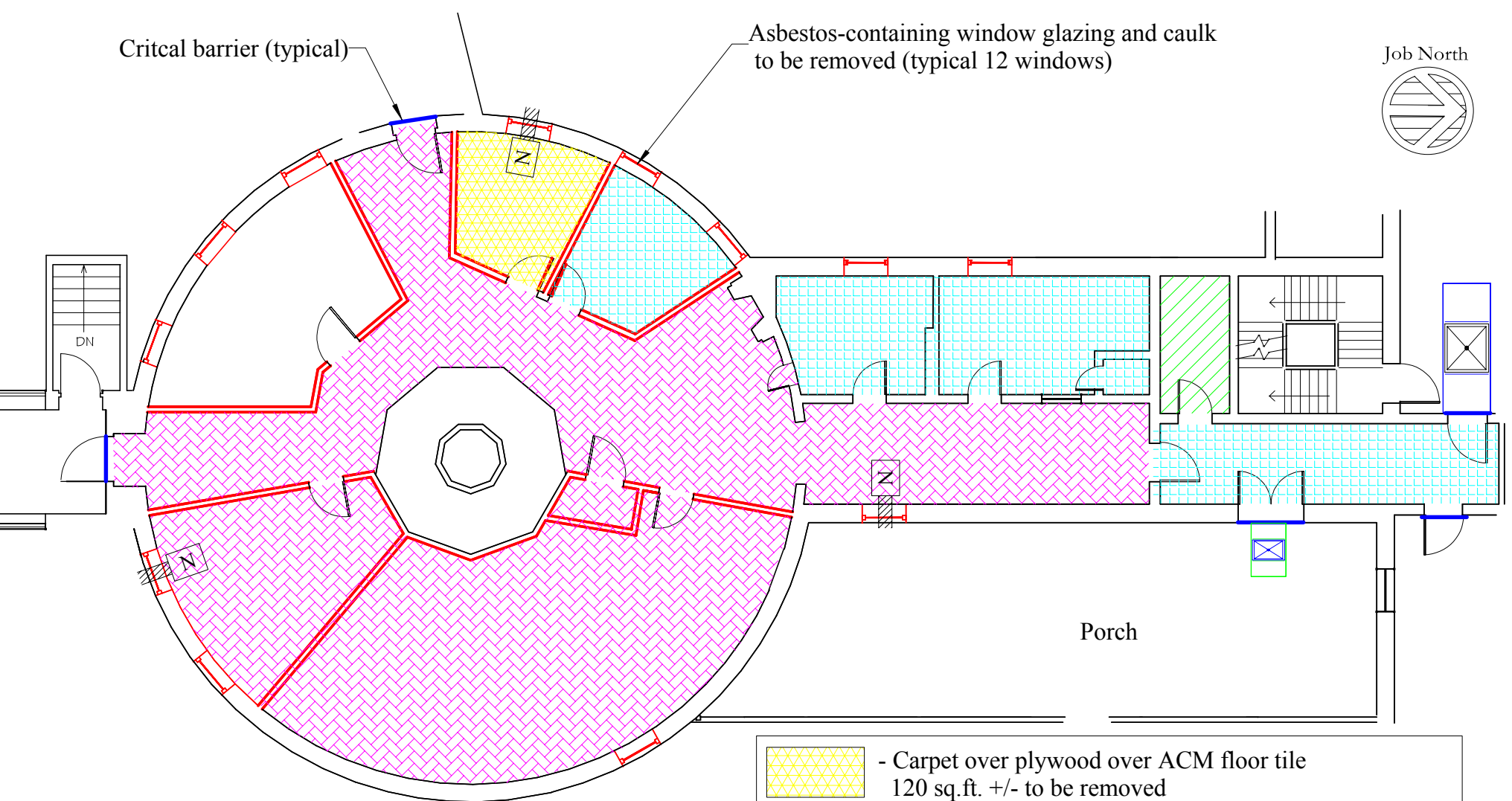
Project North






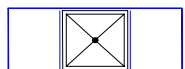
Critical barrier (typical)

Asbestos-containing window glazing and caulk to be removed (typical 12 windows)






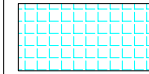
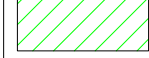
## Legend

 - HEPA filtered negative pressure filtration unit  
(Approximate locations and quantities)

 - 3 stage decon with shower

 - Waste Load-Out

 - Gypsum walls to be removed  
(approximately 4000 sq.ft.)

-  - Carpet over plywood over ACM floor tile  
120 sq.ft. +/- to be removed
-  - Vinyl floor sheeting over wood over ACM floor tile  
1650 sq.ft. +/- to be removed
-  - Carpet or vinyl floor sheeting over ACM floor tile  
500 sq.ft. +/- to be removed
-  - ACM floor tile - 60 sq.ft. +/- to be removed

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**Building 5 South - 1st Floor**

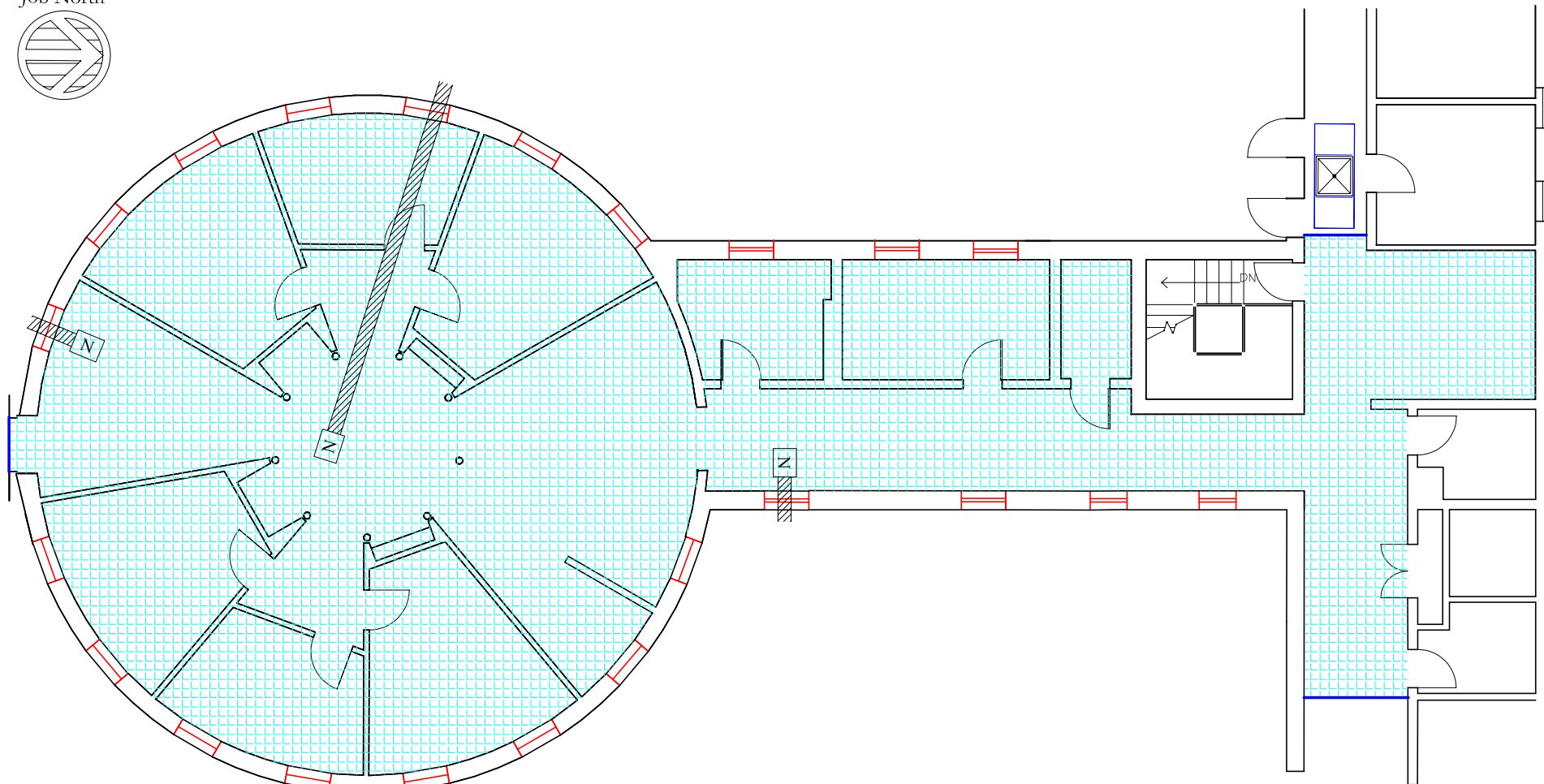
*Asbestos Abatement Design Drawing*

Not to scale

July 30, 2013

**5S-AA1**





## Legend

- HEPA filtered negative pressure filtration unit  
vented to out doors  
(Approximate locations and quantities)

- 3 stage decon with shower

- Critical barrier

- Carpet of vinyl asbestos floor tile to be removed  
3000 square feet +/-.

- Window glazing and caulk to be removed 22 windows +/-  
Only remove bulk of caulk; DO NOT DAMAGE brick or  
other substrate when removing caulk).

## ADDENDUM #1

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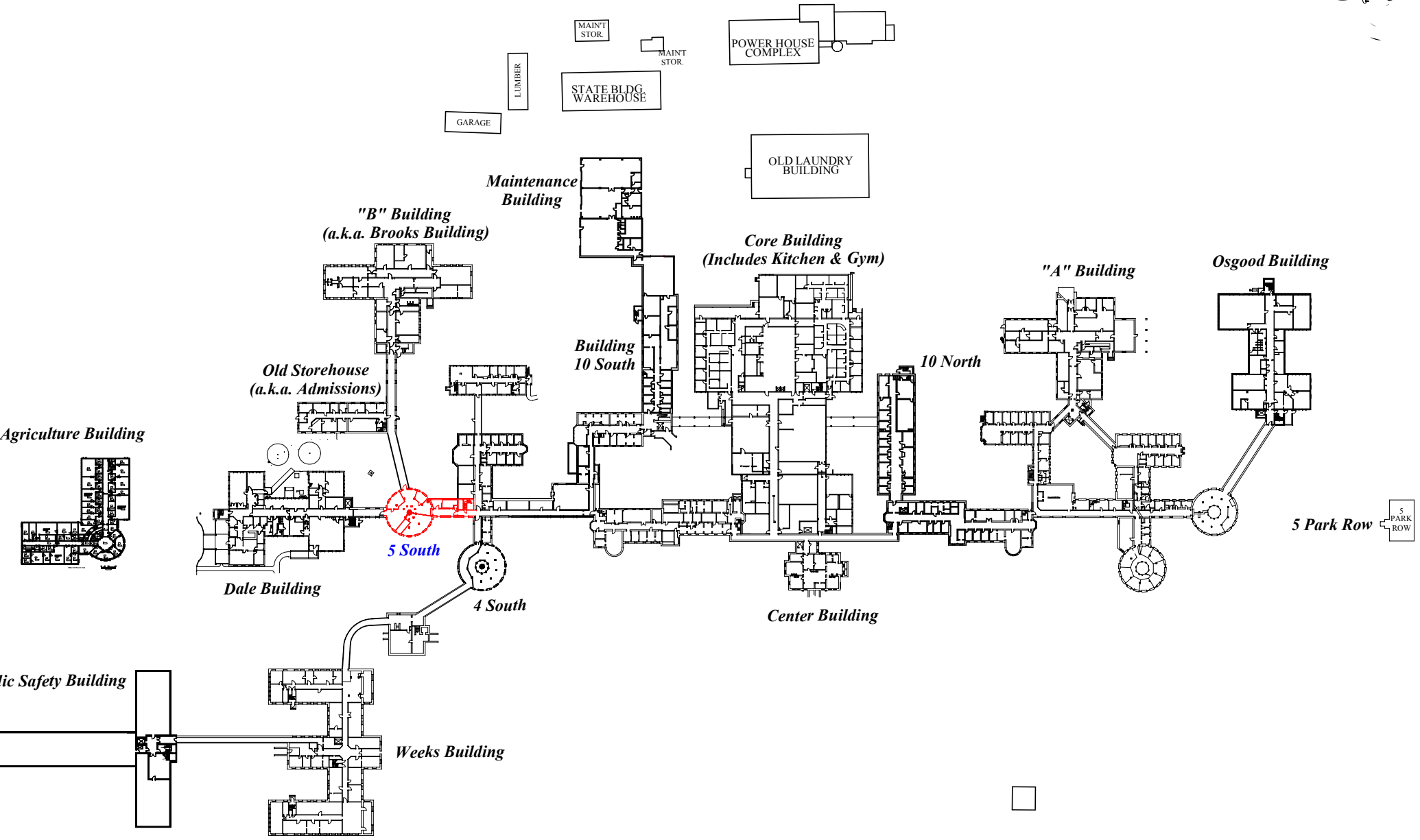
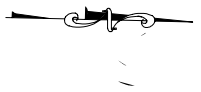
**Building 5 South - 2nd Floor***Asbestos Abatement Design Drawing*

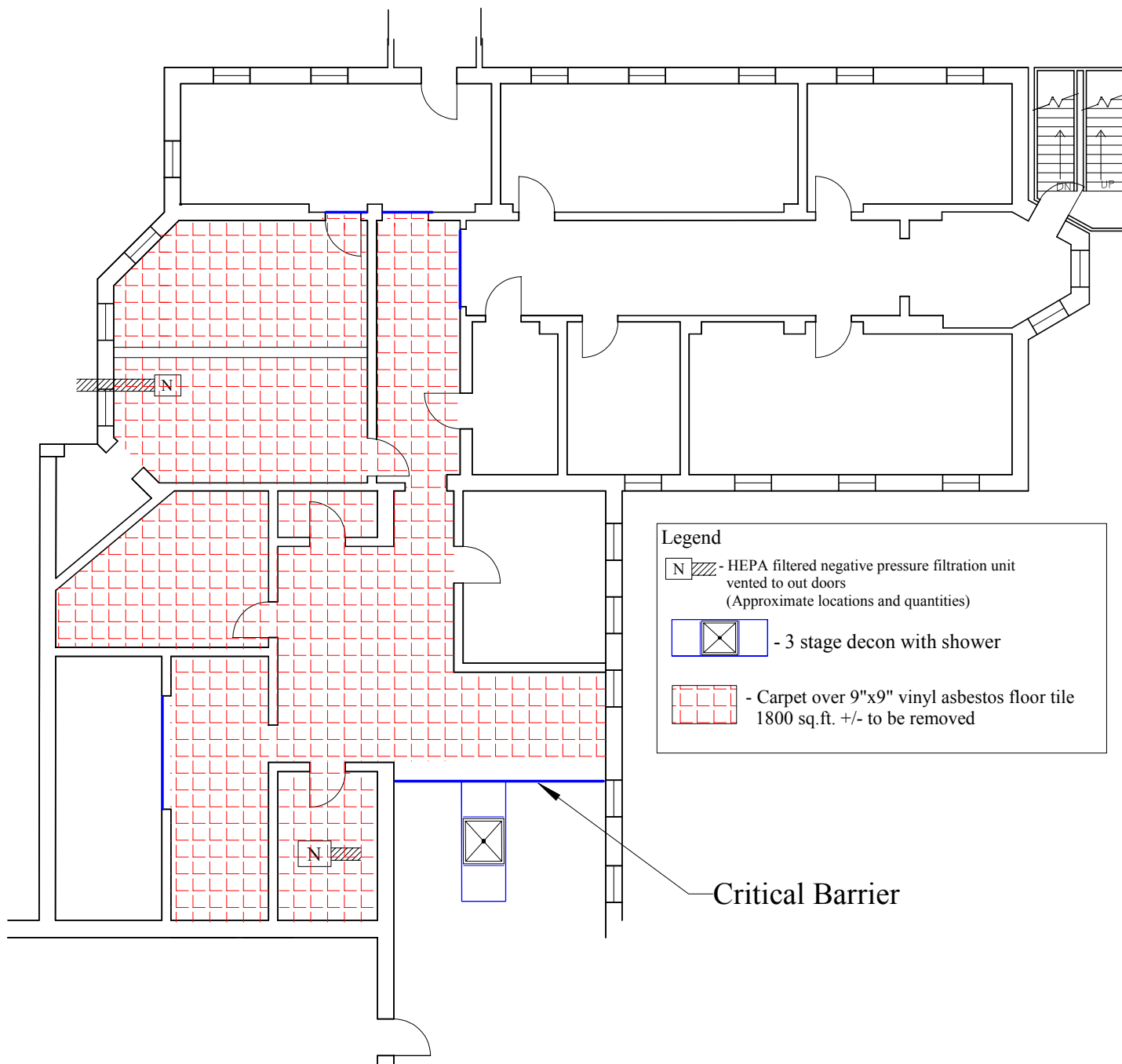
Not to scale

September 26, 2013

**5S-AD1**

Project North





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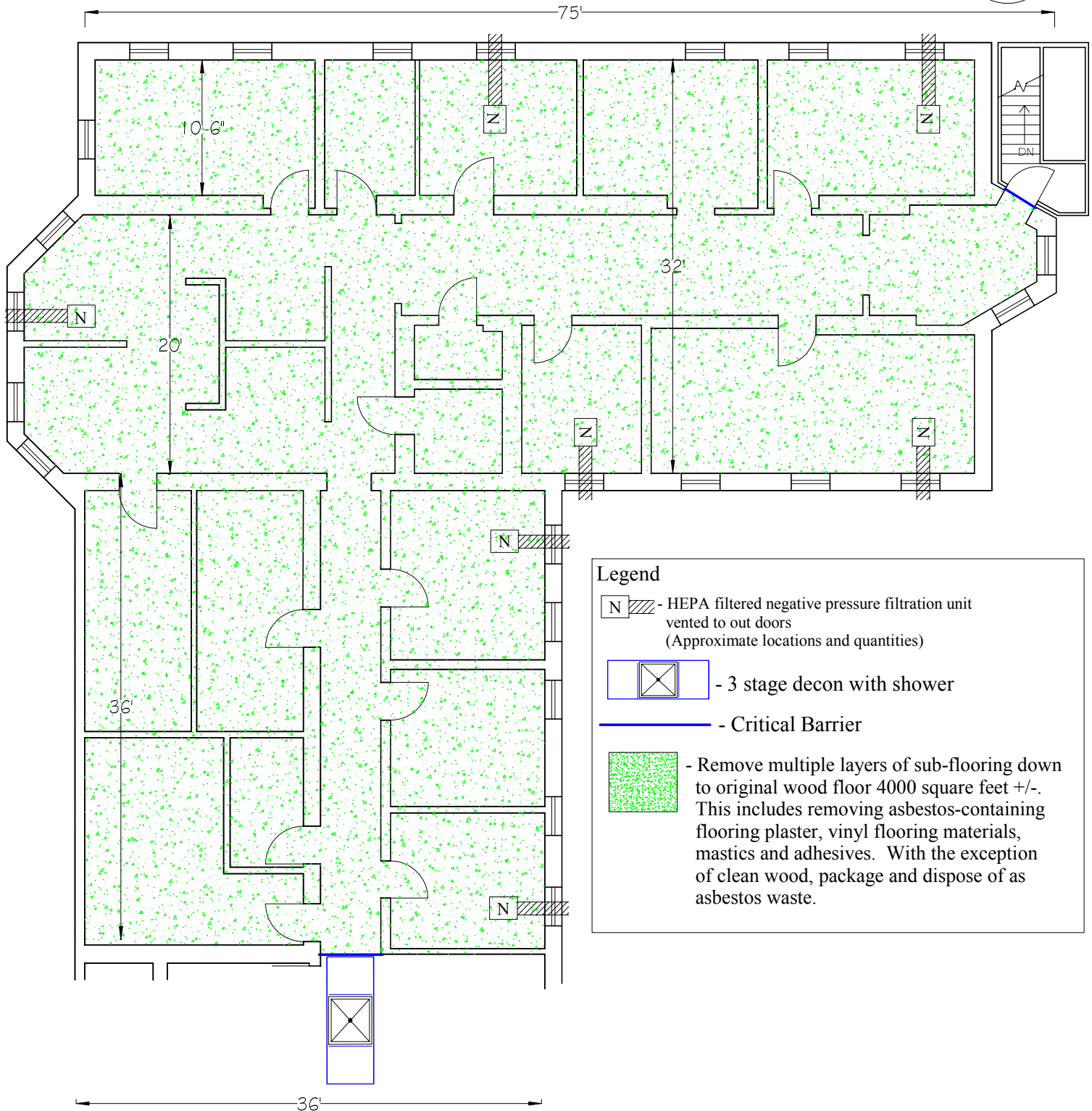
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**Building 6,7 South - 1st Floor***Asbestos Abatement Design Drawing*

Not to scale

July 30, 2013

**6/7S-AA1**



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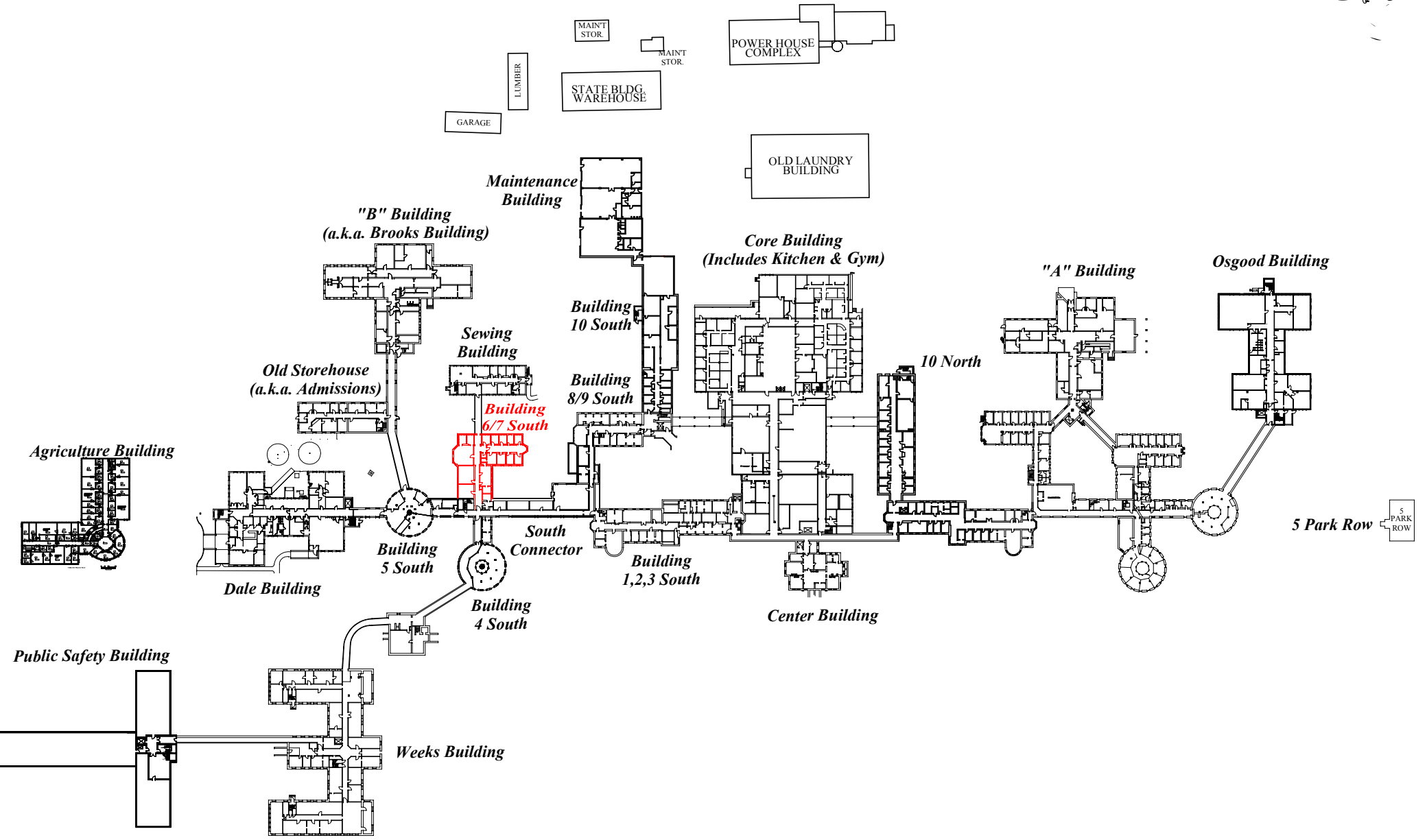
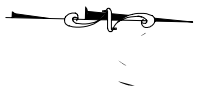
**Building 6,7 South - 2nd Floor***Asbestos Abatement Design Drawing*

Not to scale

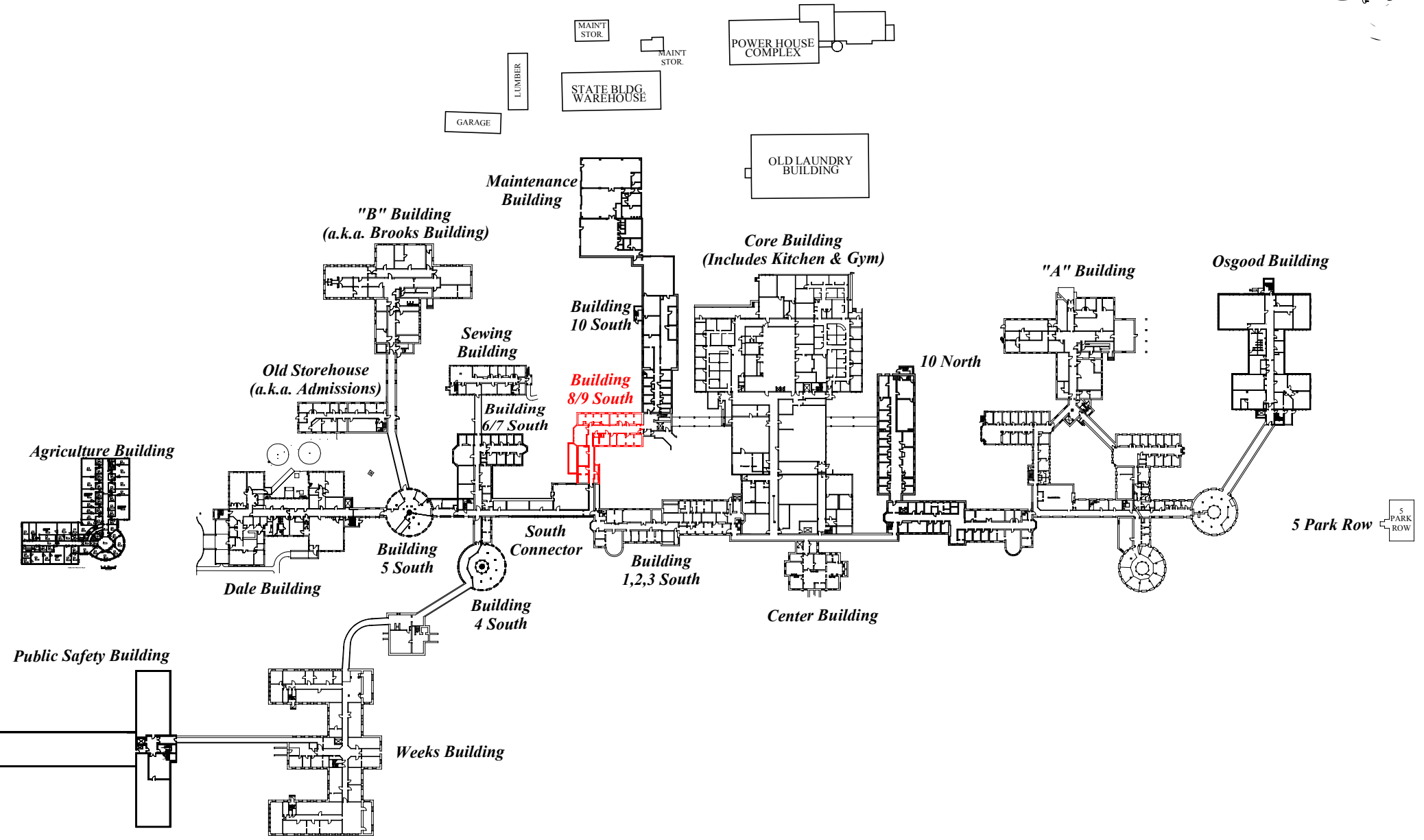
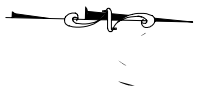
July 30, 2013

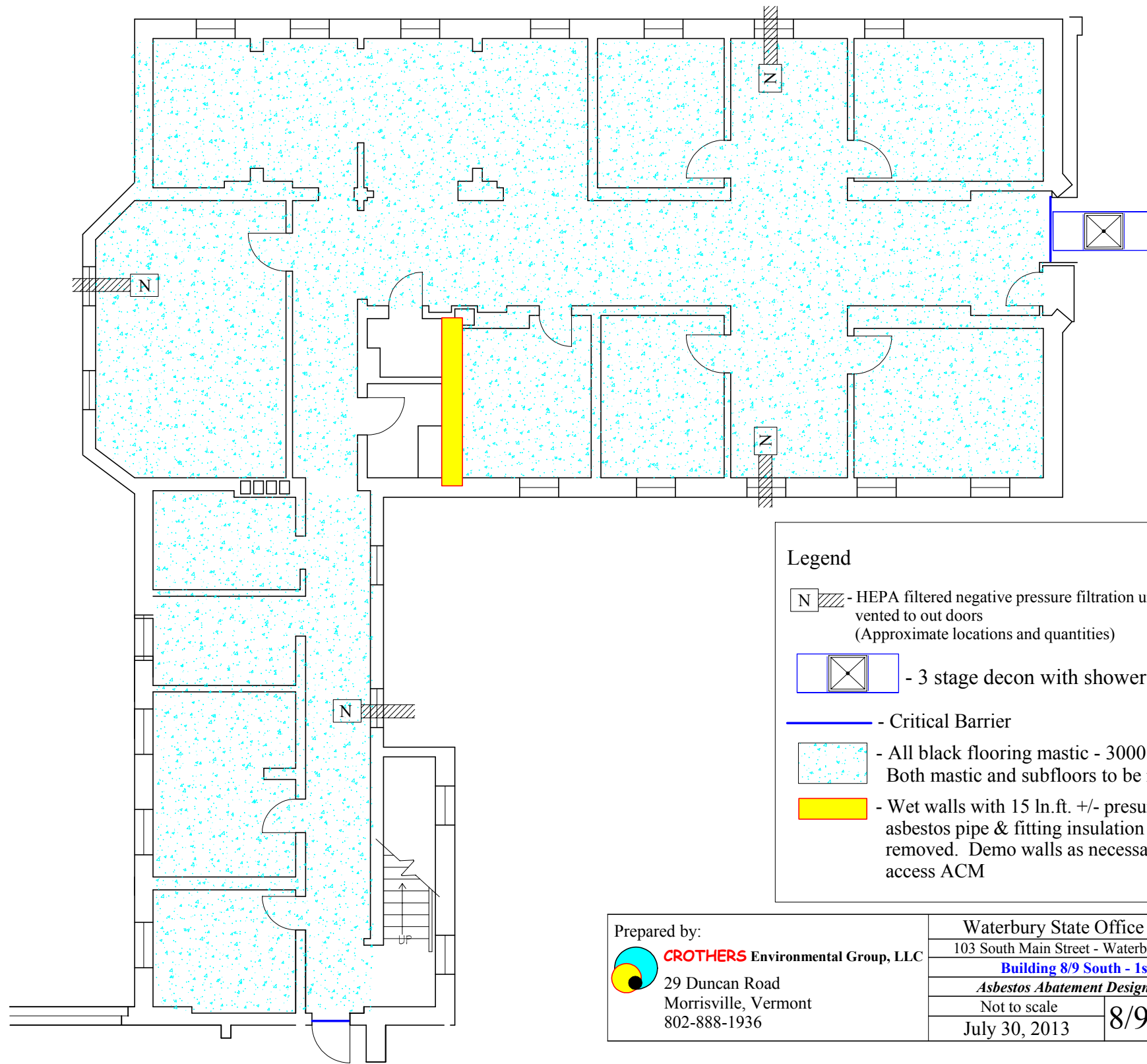
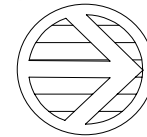
**6/7S-AA2**

Project North




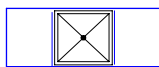
Project North







### Legend

 - HEPA filtered negative pressure filtration unit  
vented to out doors  
(Approximate locations and quantities)

 - 3 stage decon with shower

 - Critical Barrier

 - All black flooring mastic - 3000 sq.ft. +/-  
Both mastic and subfloors to be removed

 - Wet walls with 15 ln.ft. +/- presumed  
asbestos pipe & fitting insulation to be  
removed. Demo walls as necessary to  
access ACM

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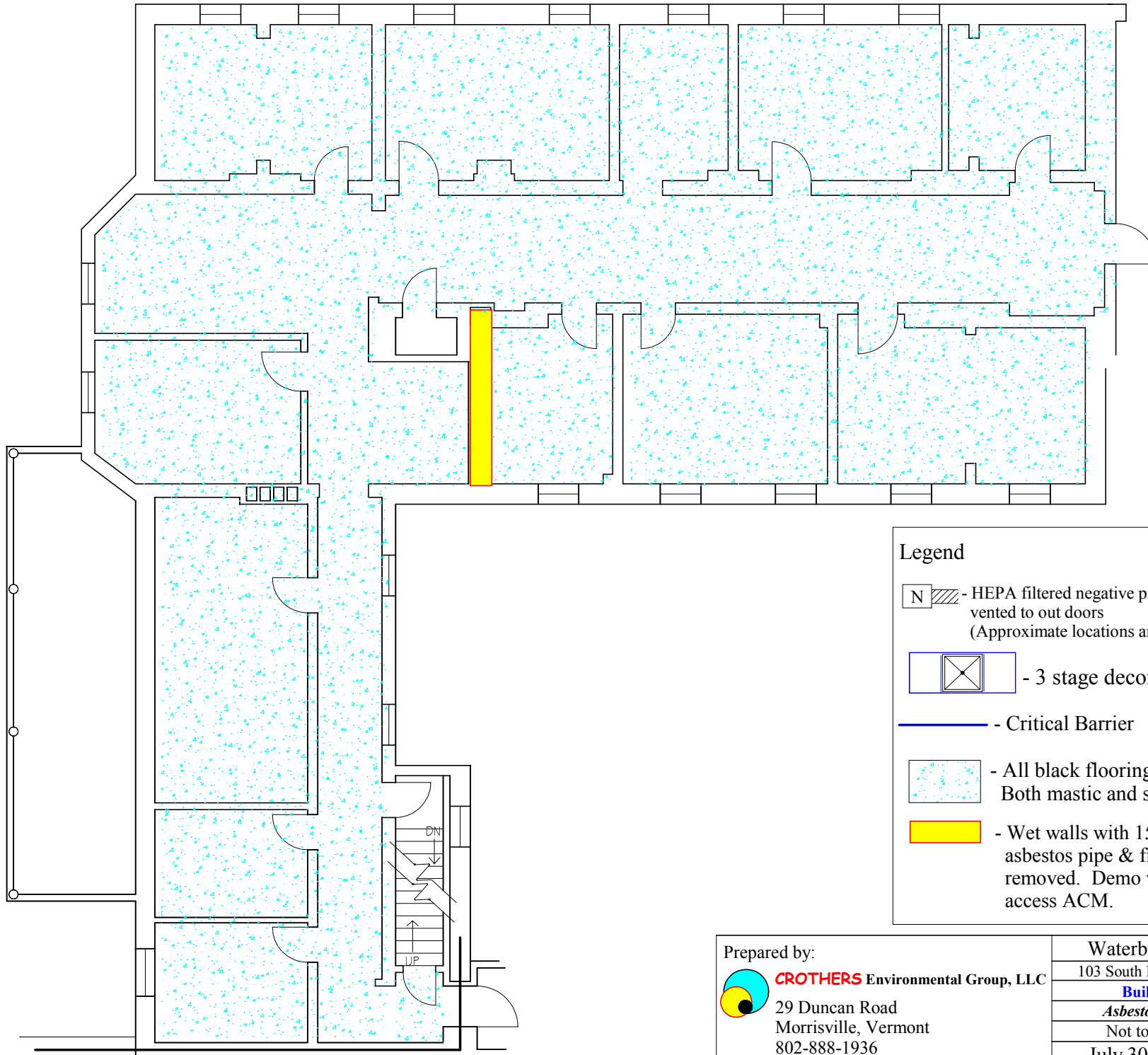
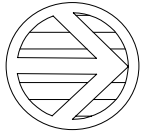
**Building 8/9 South - 1st floor**

*Asbestos Abatement Design Drawing*

Not to scale

July 30, 2013

**8/9S-AA-1**



### Legend

- HEPA filtered negative pressure filtration unit vented to out doors (Approximate locations and quantities)
- 3 stage decon with shower
- Critical Barrier
- All black flooring mastic - 3000 sq.ft. +/- Both mastic and subfloors to be removed
- Wet walls with 15 ln.ft. +/- presumed asbestos pipe & fitting insulation to be removed. Demo walls as necessary to access ACM.

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**Building 8/9 South - 2nd Floor**

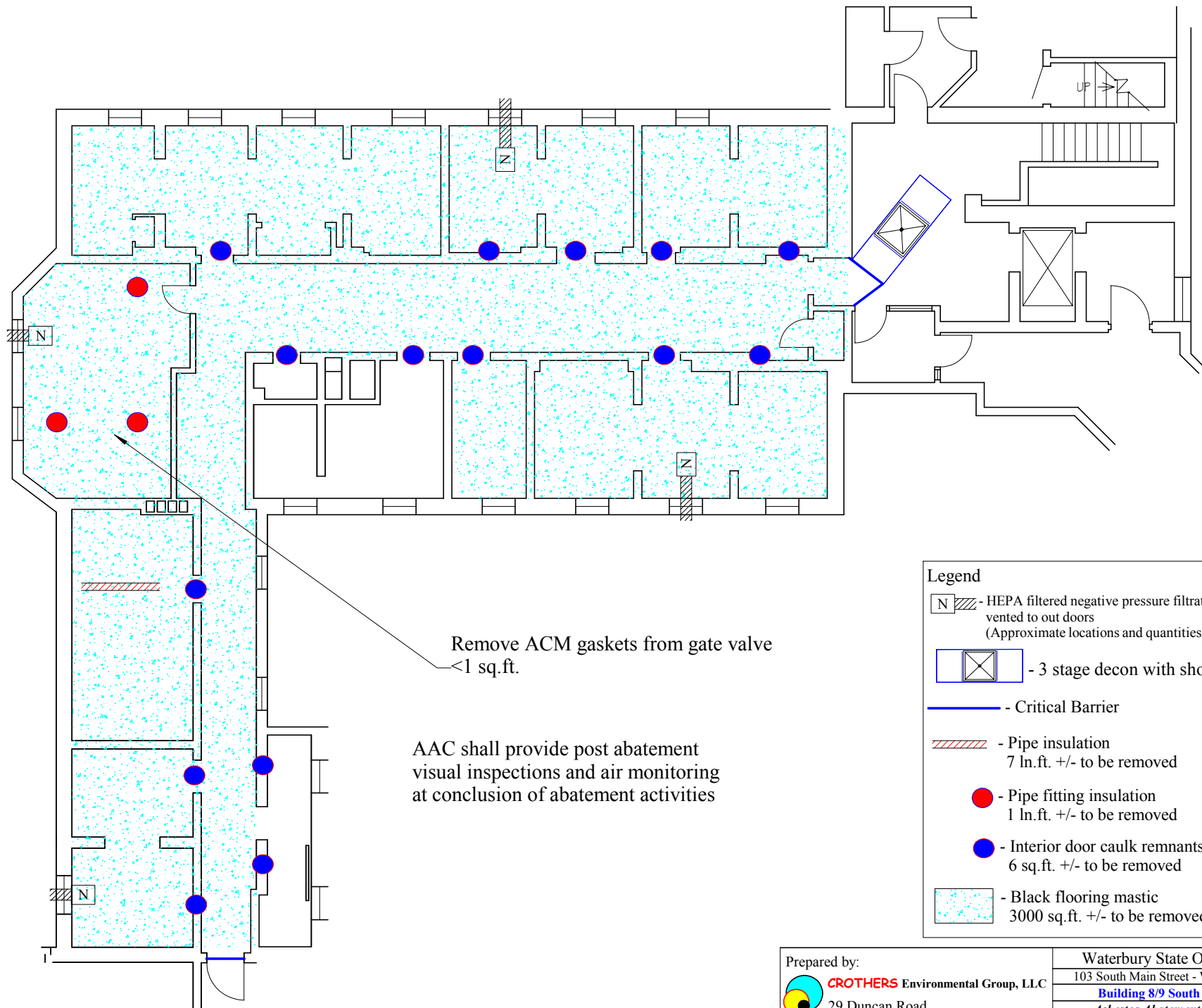
*Asbestos Abatement Design Drawing*

Not to scale

July 30, 2013

**8/9S-AA-2**





### Legend

- HEPA filtered negative pressure filtration unit vented to out doors  
(Approximate locations and quantities)

- 3 stage decon with shower

- Critical Barrier

- Pipe insulation  
7 ln.ft. +/- to be removed

- Pipe fitting insulation  
1 ln.ft. +/- to be removed

- Interior door caulk remnants  
6 sq.ft. +/- to be removed

- Black flooring mastic  
3000 sq.ft. +/- to be removed

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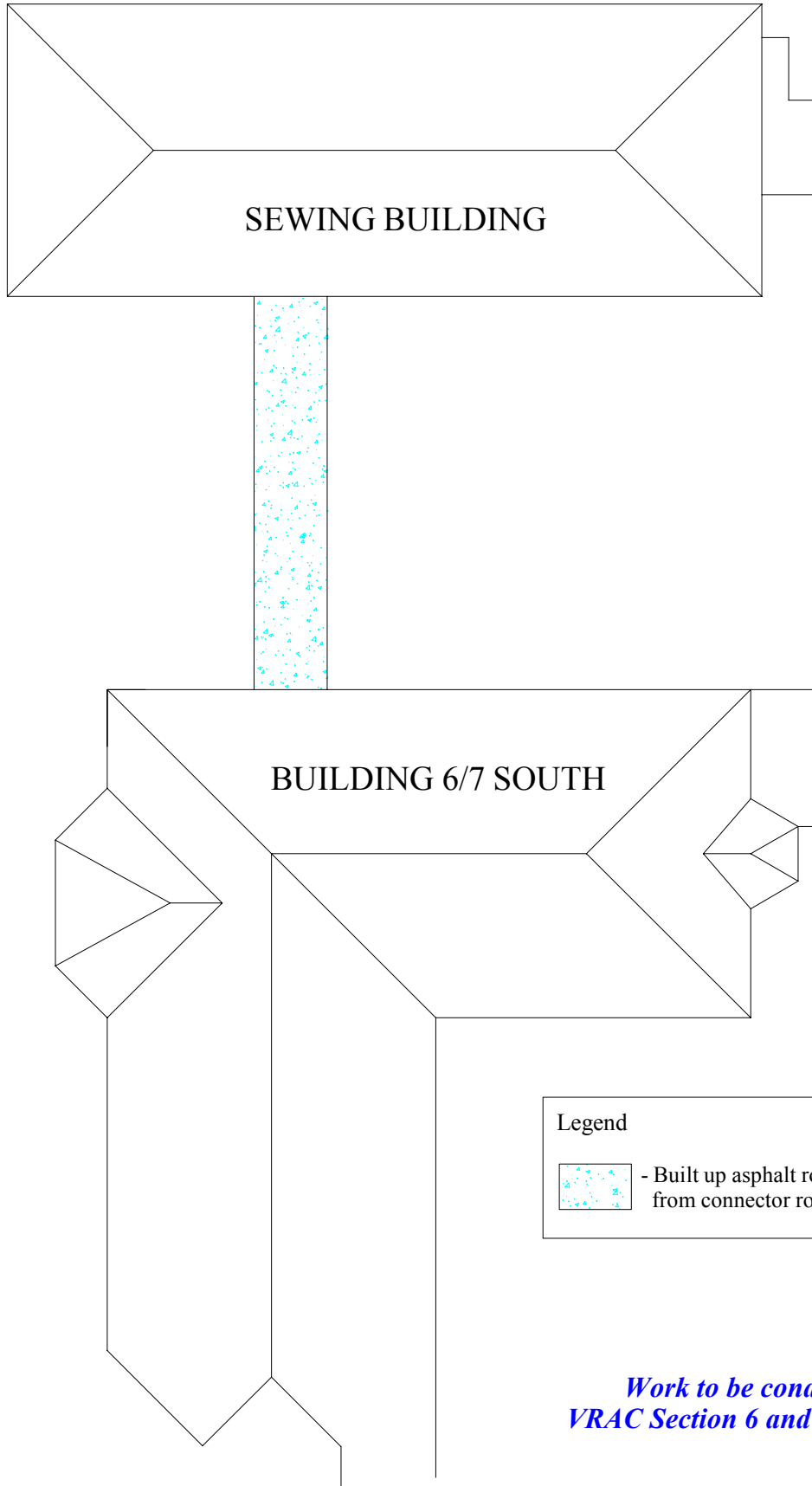
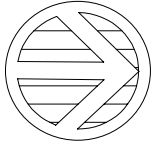
**Building 8/9 South - Ground Floor**

*Asbestos Abatement Design Drawing*

Not to scale

July 30, 2013

**8/9S-AA-G**



Legend



- Built up asphalt roofing and flashing tar to be removed from connector roof - 328 sq.ft. +/-

***Work to be conducted in accordance with  
VRAC Section 6 and OSHA Class II Asbestos Work***

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**Building 6/7 South to Sewing Building Connector**

**Asbestos Abatement Design Drawing**

Not to scale

September 26, 2013

**HSC-AD1**